

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

LONDON, SATURDAY, JULY 21, 1866.

{ STAMPEDSIXPENCE.
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Original Correspondence.

COLLIERIES AND COLLIERS.

SIR.—How long will the coal fields of Great Britain continue to supply the large and increasing demand of our manufactories, railways, and export trade with a good and cheap fuel? This question has often been asked, and in presence of the fact that the annual draft upon our collieries has increased threefold during the last twenty years, it has been repeated this session of Parliament in the House of Commons. To answer it correctly may be difficult, but to give a reply sufficiently accurate to satisfy the public mind is not impossible, if, considering the national importance of the subject, the mode of investigation be clearly stated. Hitherto the calculations of eminent men have been read without confidence because there has been a want of unity in their results. Every calculator has taken the data most satisfactory to his own mind, without explaining how and why they differed from those accepted by other men. The appointment of a Royal Commission of Enquiry, therefore, became necessary for the settlement of the question; a result not at all improbable, if the public have confidence in the Commissioners. Supposing them to be free from the bias of personal interest and party influence, they may be expected to possess a competent knowledge of geology and the physical sciences, some acquaintance with coal mining, habits of careful investigation, and business tact. If men with such qualifications be chosen, their report will be received with confidence by the public, and with respect and candid examination by men competent to form an independent opinion. But, unfortunately, Mr. Hussey Vivian, the member for Glamorgan, when proposing the enquiry, delivered a lecture at St. Stephen's, intended, no doubt, for the public eye, and it contained many incorrect statements and opinions calculated to prejudice the question, and misdirect the uninformed. He doubted everything that had been written on the subject, disputed the principles and data of calculation, assumed the certainty of that which all scientific men have declared impossible, and then came to the conclusion that coal will be worked two miles underground, and be found under the Secondary and Tertiary rocks of the Eastern and South-Eastern Counties. To answer some of these statements, and explain the mode of enquiry, is the object of this essay.

It may not be evident to everyone that two opposing interests are involved in the answer to be given to the question—How long can the British coal fields continue to supply the demands of the home trade and foreign market? We must look at home first, says the British Consumer, and though free trade is the right system of business, there are times when it must be restricted, as the community must not suffer for the benefit of individuals. So, if we are likely to be in want of coal ourselves, some restriction or charge must be put upon the foreign trade to prevent a national disaster. Sir W. Armstrong, when Chairman of the British Association in 1863, said—"The greatness of England much depends upon the superiority of her coal in cheapness and quality over that of other nations, but we have already drawn from our choicest mines a far larger quantity of coal than has been raised in all other parts of the world put together; and the time is not remote when we shall have to encounter the disadvantages of increased cost of working and diminished value of produce." We believe this to be true, and as Sir William says no more than other competent men have frequently affirmed, let all doubt be removed by the appointment of a Royal Commission to investigate the subject in its details.

You may have the Commission you desire, the Coalowner replies. I tell you before hand there is coal enough in England to last for ever. There is no limit to the quantity underground, nor to our power of getting it. Let the foreigner have as much coal as he will pay for: there is enough for all the world, though the waste is always great, and in some collieries nearly a third. As we shall soon have many other modes of heating, and some new heat-giving substances better than coal, it is to the advantage of the country and of trade to open the foreign market by public proclamation, and charge no toll. But if you desire a Commission, our coal viewers must be on the board, for they are practical men, and can instruct your writers and men of science. "I hope to see Lord Granville, the Duke of Argyll, or some one of that kind, at the head of the Commission, assisted by a practical coal viewer from each of the most extensive coal fields in the country, and men of high scientific attainments."

I have no desire to depreciate the merits of coal-viewers—your agents and representatives—the British Consumer replies to the hon. member for Glamorgan. In their several districts, and for their difficult special duties, they are the most competent men in the world, but they are not the proper men for the proposed Royal Commission. A juror or a judge must be unbiased, and such the coal-viewer cannot be on the questions to be decided between his employer and the people of England. He is an indispensable witness, and one able to explain his opinions distinctly, and maintain them against all comers. But, in spite of his great local information, he may have no accurate conception of general principles—no guide to truth but a weak, uncertain, empirical knowledge. Mr. Vivian himself limits the usefulness of the viewer to the districts with which he is specially connected, for he wishes to engage one from every large coalfield. But I should deal unjustly with viewers, as a class—intelligent, industrious, trustworthy—if I did not say how conscious they are of their limited scientific education, and of their unfitness for an investigation which requires a sound appreciation of geological evidence, a judicious apprehension of physical law, an ability to collate facts, and a capacity to discover the operation of natural agencies in apparently contradictory phenomena. No men can excel them in minute, painstaking research and prompt decisive action within the bounds of the mines or districts in which they are daily and laboriously employed. But, independent of all personal considerations of intellectual fitness, they are excluded from the Commission by the fact that a man cannot be a judge if he be in the service of a person who may be injured or benefited by the verdict.

It would be unkind to the honourable member for Glamorgan if some attempt were not made to break the thralldom of his painful dream about practical and scientific men. As frequently happens in somnolent states of mind, he is the victim of a distressing confusion of ideas. He is under the delusion that practical and scientific are contradictory qualities, and believing the impossibility of their co-existence in the same individual, makes some grave and some laughable mistakes. The South Wales coal-viewer is, in his mind, the type of the genus "practical men." It may be doubted whether Michael Faraday, Adam Sedgwick, Richard Owen, and investigators of the same class, could be admitted by Mr. Hussey Vivian to the same proud distinction, as they are eminently scientific. How very seriously the admirable balance of the honourable gentleman's mind must have been disturbed by this delusion, will appear from his statement about the discovery of coal under the magnesian limestone in the county of Durham. "In the county of Durham," said the honourable gentleman, "the Permian strata have been largely cut through, and enormous quantities of coal have been obtained, though a few years ago the highest geological authorities maintained that coal was not to be found at all under that formation." This is something more than a mistake—it is a reversal of truth—injuring the right, and honouring the wrong. William Smith, the mineral surveyor, was the "Father of Geology," and he discovered the Durham coalfield, lying under the magnesian limestone. Was the strong conviction of his mind inspired by his practical knowledge of mining, or by his prescience as a geological pioneer and discoverer? Strata Smith, as the old man was frequently called, discovered the fact which made geology a science, when he told the ardent students of his day how to determine the ages of rocks by their fossils. Who were the high geological authorities referred to by Mr. Vivian? They all sat at the feet of this Gamaliel. Call him a theorist, if you will, you cannot deny his discovery of the succession of rocks, when the blundering, positive, practical miners of his acquaintance were groping blindfold in the headings of their collieries, not knowing what he meant by the phrases he used in the explanation of that great discovery, which justified him when he asserted the existence of coal at Haswell under a magnesian limestone cover. The Newcastle viewers laughed at the wild, unpractical idea. They denied the existence of coal under magnesian limestone, just as the prejudiced men of Somerset and the obstinate men of Lancaster refused to believe in its presence under the Red Earth. William Smith, the theorist and visionary, stood alone, none the less decided because it pleased

practical ignorance and folly to laugh; year after year he waited the result of his suggestion, while Col. Braddyle, one of the proprietors, removed the difficulties in the way of the desired trial. At last he "succeeded in establishing the magnificent works called the South Hetton Colliery, which rivals the mightiest establishments of the Lambtons, Vanes, and Russells." I do not know whether Mr. Hussey Vivian's state of mind will induce him to claim William Smith as a practical man, and put him in opposition to the "highest geological authorities," but Smith, the practical man, was in league with the ancient Newcastle viewers against Smith the geologist, and had they prevailed the coal question, which now disturbs the politicians as well as the merchants and scientific men of England, would not have been asked. The prophetic words of the discoverer were confirmed, but "the execution of the grand scheme was entrusted to others," says Prof. Phillips, his nephew, pupil, and biographer. The proprietors of an almost worthless surface made princely fortunes from this hidden mineral, because they disregarded the warnings of the practical man, but they forgot the truth-telling discoverer and the enthusiastic encouragements of the theorist.

Whether the Government has adopted a better plan than the member for Glamorgan in the choice of a Commission is doubtful. The enquiry, we are told, is to be left to Sir Roderick Murchison, and the department of the Geological Survey, with such unattached persons as may be selected. If the gentlemen on the Government staff have time to spare for such an elaborate investigation as is proposed to the Coal Commission, may it not be desirable to close the Survey and save the country further expense. There has long been a doubt whether the institution has not outlived its usefulness, and become a domineering influence over a useful department of science. If the members of the Geological Survey, whose opinions are known before the Commission begins its work, so often are they in print, have time to devote to this important enquiry, they have no proper business of their own. The report of such a Commission will be a re-statement of the opinions of Sir Roderick Murchison, and if they are not already known to everybody, it is because everybody has not had the inclination to read them. We, therefore, protest against the employment of Government officials in the investigation of the coal question; and if there were no such objection to the choice of them, they were ineligible, because freemen hate the centralisation of intellectual power, which is a painful discouragement to scientific men, who are positively restricted from public service if they are not the permanently paid servants of the Government, and in this instance under the patronage of Sir Roderick Murchison.

[To be continued in next week's Mining Journal.]

THE COAL QUESTION:

COMPARATIVE COST OF DEEP AND SHALLOW MINING.

SIR.—That this subject is one of great importance has been fully admitted by all parties. Mr. Hussey Vivian, in his able speech in the House of Commons on June 12 last, divided the subject as follows:—1. The depth from which coal can be worked.—2. The effect of depth on the price of coal.—3. The quantity of coal ascertained or believed to exist in our known coal fields.—4. The contents of unknown and undiscovered fields lying beneath more recent formations.—5. The rate of consumption of coal.

The most important question in considering this subject seems to me to be the cost of production, in connection with the unavoidable capital expenditure of deep mines. The way Mr. Vivian disposed of this part of the subject is, to my mind, the least satisfactory part of his speech.

Apart from the consideration of the physical and mechanical difficulties arising from working in and raising coal from deep mines, and ventilating the wide areas of open workings required to the great distances from the shafts, which is indispensable in working large daily quantities of coal, from the extended areas which must necessarily be worked to one centrally situated winning, it is not only necessary that the serious amount of capital required shall be recouped, which Mr. Vivian estimates may be done by a working charge of 1d. to 2d. per ton, on an area of 2000 acres, containing a workable thickness of 20 or 10 feet of coal, but by far the most serious, important, and difficult requirement is that interest on such unavoidable capital outlay must also in the meantime be realised. It is impossible to deny that, with all other conditions being similar, except depth, the capital expenditure to enable a given quantity (say 1000 tons) of coal to be raised per day must be increased in proportion to the increased depth, so far at least as the shafts and the machinery requisite to raise the coal are concerned.

Suppose four collieries of different depths, provided with power to raise 1000 tons of coal per day each, or for 260 days per year, or five days per week, 260,000 tons per year have been won at a capital cost of 50,000l., 100,000l., 200,000l., and 250,000l. respectively, we have the following results to provide interest at 10 per cent. per annum on such capital:—

Capital cost.	Interest at 10 per cent. per annum.	Profit per ton required on 260,000 tons per year.
50,000	5,000	4s. 6d.
100,000	10,000	9s. 2d.
200,000	20,000	18s. 4d.
250,000	25,000	23s. 0d.

We thus see that for equal quantities of coal raised per year, every 50,000l. of capital required is a perpetual charge of upwards of 4½d. per ton on the quantity of coal stated. I may state that 1000 tons per day is, in my opinion, much higher than the average quantity of coal now being raised from two drawing shafts, and from a depth (say) of 1000 feet; indeed, there are very few instances where such is actually being done. In many districts the obstructive proceedings of the workmen render such production impossible at the present time. I may further add, that the depth of 1000 feet is much more than the average depth from which coal is now raised in this country; indeed, I believe it would be found to be not more than half this depth. This I consider to be an important point, well worth the attention of the Royal Commission recently appointed.

If we add the penny or two pence per ton, stated by Mr. Vivian to be required to recoup an increased capital expenditure (arising from increased depth) of 250,000l., we have an increased current or working charge of 2s. or 2s. 1d. per ton, to meet the capital exigencies of such a case. I may add what I think will be generally admitted, that as the shafts of the deep coal mining of the future will generally be required to be sunk through the formations overlying the coal measures, and as such superior formations usually allow water to pass through them most readily, all the difficulties and expenditure of sinking through heavily water-laden strata, and permanently tubbing off or damming back such water feeders, will render the upper portions of such sinkings of the most costly description. In the county of Durham the difficulties to be overcome in sinking through the magnesian limestone, and underlying sand, or sandstone, have been most formidable and expensive. A most instructive example is afforded by the description given in the "Proceedings of the North of England Institute of Mining Engineers" by Mr. Edward Potter of the Sinking of Dawdon Colliery.

There seems only two courses available to meet the serious capital expenditure involved in deep coal mining; the one being an increased selling value of the produce, equal to at least 6d. per ton for every additional 50,000l. capital involved. The other being such an enlarged size of shafts and arrangement of power as to enable such a quantity of coal to be raised per day as has never yet been realised. Enormous production must be the basis of deep mining. Hitherto many comparatively deep sinkings have been unable to produce anything like satisfactory interest on the capital expended, not so much on account of cost of production or comparative value of the produce, but because the quantity of coal produced was totally inadequate to meet the large capital unavoidably involved.

As I consider this the hinge on which the question hangs, I will try to illustrate my views more fully by an example. Suppose two collieries having similar difficulties of winning, except the depth, and that when won they are each capable of raising 100,000 tons of coal per year, the one of least depth having cost 25,000l., and the one of greatest depth 100,000l. for shafts, machinery, &c. Suppose further, that the working cost and selling price of each are precisely the same, and that the profit realised is in both cases (say) 1s. per ton, or 5000l. per year. The colliery of least depth would realise 20 per cent., and that of greatest depth only 5 per cent. on the capital involved. The colliery of greatest depth would thus require to produce four times the quantity of coal on the same terms in a given time to produce the

same percentage of profit, or it would require four times the profit per ton to produce the same results—that is, it would require proportionately increased powers of production and further capital expenditure, or an increased selling value. In this supposed case I have considered the difficulties and expense of winning and working equal, I have already stated that the circumstances of deep mining are most likely to involve more cost in proportion to the depth, by reason of the difficulties known to exist in sinking through the Permian and New Red Sandstone formations. Whatever may be the improvements in working coal, it is impossible to work deep mines at the same cost as mines of moderate depth, entirely apart from the consideration of capital cost. A larger amount of power must be maintained in boilers, fuel, firing, and machinery and ropes, as well as the repairs of the deeper shafts, entailing increased cost.

Deep mining involves the necessity not only of large daily production, but also of working large areas of coal to one central winning. Up to such a distance from such central winning as may be considered the average distance of moderately deep mines, the cost of production, whilst such production is in proportion to the capital expended, may be equal to that of mines of moderate depth. Beyond that average distance the expense of ventilation and of the conveyance of the coals produced must be seriously increased. This will be at least in proportion to the extended area worked. A few years ago I calculated the cost of conveyance of coal underground, as follows:—

Putting with ponies	22-25d. per ton per mile.
Conveyance by ponies	3-37d. " "
Conveyance by horses	2-37d. " "
Conveyance by self-acting plane, No. 1	2-30d. " "
ditto ditto No. 2	8-5d. " "
ditto ditto No. 3	6-0d. " "
Conveyance by engine-power from dip workings ..	1-19d. " "
The length of the self-acting incline planes were—No. 1, 400 yards; No. 2, 600 yards; and No. 3, 900 yards.	

This, with the maintenance of extended roads and air-ways, will increase the cost of deep mining. The cost of ventilating moderately deep mines of the present day is generally understated. The cost and difficulty of efficiently ventilating deep mines, to the distance of one, two, or three miles from the shaft will be considerable. I know of no instance where 20,000 cubic feet of air per minute has been passed to the distance of two miles from the shafts. These considerations are entirely independent of the temperature of deep mines. It is correctly argued that great improvements may be effected both in the winning, working, ventilating, and underground conveyance of the coal in deep mining, but these are equally applicable to mines of less depth, and do not reduce the comparative difficulties.

It is trusted that these views, hastily compiled, may induce others, having the necessary leisure, to pursue the enquiry in the different branches of its manifold ramifications, and thus to add to the existing stock of knowledge on the subject. Whilst the writer acknowledges this subject to be surrounded with difficulties, he has not the slightest hesitation in expressing his conviction that such difficulties will be triumphantly overcome by the experience, perseverance, and skill of this country. Every acre of coal will, no doubt, be rendered available to the use of this country, but the comparative effects of capital expenditure and cost of production will remain as they now exist.—Yorkshire, July 18. M. E.

A REVIEW OF PORTIONS OF THE EVIDENCE GIVEN BEFORE THE "SELECT COMMITTEE ON MINES" APPOINTED BY THE HOUSE OF COMMONS.

SIR.—As the public have not yet had an opportunity of reading the evidence given before the "Select Committee on Mines," other than what has been afforded by public journals, some errors in the reporting or printing may possibly have been circulated; these, however, I apprehend cannot be so numerous or important as to mislead readers to any great extent. I may, therefore, I think venture to assume for my purpose that the main of the evidence, as it has appeared in the *Mining Journal*, is correct. The portions of this evidence to which I wish to direct particular attention are—*Firstly*, the duties of Inspectors of mines; *secondly*, the appointment of assistants to the present Inspectors; and, *thirdly*, the granting of certificates of competency to viewers and under-viewers of coal mines. As a large amount of evidence has already been taken by the Committee, I do not think that any remarks I may make on these three heads are premature. I would also premise that when persons are called upon to give oral, unpremeditated answers to questions, they may not exactly express what they mean, or they may answer directly contrary to what they would state, after some time of calm and undisturbed reflection.

Firstly, then, allow me to call attention to what has been brought out in evidence as to the duty of Inspectors. Mr. Joseph Dickinson, Government Inspector of Mines, says—"I have plenty of time for my duties, also for incidental enquiries when necessary." Now, the duties of an Inspector, as defined by Mr. Dickinson, are to visit mines when there is some "special reason" to do so—when some complaint is made as to something being wrong in the mine, or when an accident has occurred to the limb or life of anyone in the mine, to enquire into the cause of it.

Now, whatever the instructions to Inspectors may be from the Secretary of State, I presume that I am right in stating that the spirit and intention of the Act of Parliament, appointing Mine Inspectors, was that they should examine all mines in their respective districts, to see that all general and special rules for the safety of the workmen were complied with. Mr. Dickinson considers himself a "strict Inspector," and that his district is not too large for him to discharge his duties as he thinks they ought to be discharged, and as the Act of Parliament contemplates. Mr. Ralph Moore is able to comply with his instructions as to the amount of inspection necessary. Mr. John Job Atkinson considers it to be his duty to visit mines without complaints, "though, of course, it is very little that can be done in that way with the present number of Inspectors." Mr. Evans is opposed to having any assistance in his duties, because it would be the means of increasing instead of lessening his responsibility (the safety of life having, of course, nothing to do with the question).

There is very evidently a considerable difference of opinion among the Inspectors themselves as to what their duties really are. Whether this arises from want of clearness in the instructions they receive, or a difference in the instructions received by them respectively, I should like to know; and it would be well if the mining community were informed of this, to them, very important matter. I know one of the Inspectors who considers it to be his duty to go down every mine in his district, independently of any "complaint" or "special reason"; and Mr. John Hedley, in one of his reports to the Government, said that in one year he had visited the underground workings of every coal mine in his district. Only a few days ago an Inspector was seen at a coal mine near where I am now working; having doffed his coat, he was with others hauling away at a rope for the purpose of raising two men from a shaft where their lives were in danger! What, in the name of fate, are the duties of the Inspectors, if not to do everything in their power to prevent mine accidents? and to this end they ought to know the condition of underground workings and mining machinery of every colliery in their district. Just observe the absurdity of Mr. Dickinson's assumed position; he goes to a colliery when there is a "special reason" for doing so. Now, this can only mean either where there has already occurred some fatal or severe accident, or where complaints have been made by the workmen that the mine is in a dangerous state. Some "special reason" forsooth! Not go to a mine till some poor fellow, or several of them, have come to an untimely end, and their families made to endure grief and poverty! Why, Mr. Dickinson, you ought to have been there sooner; the "special reason" for your visit should never have been allowed to occur. And then, Sir, I suppose you are aware that not only are there many cases where workmen would be afraid to inform you about the condition of the pit, but that workmen cannot be expected to know the existence of all dangers in a mine. If they had the ability to know this for themselves they would then be as clever and able as yourself, although, perhaps, not quite so "strict." Mr. Atkinson has not time to do all his duty, whilst Mr. Dickinson can not only discharge his duties as he thinks "they ought to be discharged," but he can, moreover, find time for the duties devolving on a Commission to enquire into the duration of British coal fields. Only you see, Mr. Editor, the two gentlemen have widely different notions as to what their duties are. I suppose Mr. Moore will find time to assist

Mr. Dickinson as a Royal Commissioner, &c., seeing that he also seems to have some spare time on his hands.

I am glad to find Mr. Woodhouse giving such a good account of Mr. Evans. "He seems," says Mr. Woodhouse, "to be always toiling and always at work." Mr. Woodhouse, however, also says that some assistance given to Mr. Evans would be useful in his district. I should like to know from the other Inspectors whom I have not named what they consider their duties to be; whether they never enter a mine without having some "special reason" for doing so, or whether they visit mines in their district indiscriminately, without "special reasons" or "complaints." Can you, Mr. Editor, tell us what the Secretary of State's instructions (general) to a Government Inspector are? I think the mining public ought to be made acquainted with them.

My second head is the appointment of Assistant-Inspectors or Sub-Inspectors. Nearly everyone of the examiners who up to this time have been before the Select Committee, and who are engineers or Inspectors, agree that Sub-Inspectors or Assistant-Inspectors would not answer very well. The Committee, I think, must be well satisfied that the present number of Inspectors is not adequate to the work of inspection necessary for the reduction of accidents, fatal and otherwise, to a minimum. Boys as assistants, or anyone below the status of experienced and educated mining engineers, would be not only incompetent to render any assistance to the work of inspection, but they would be looked down upon by colliery viewers and managers, and the moral and effective intended benefits of inspection would, to a great extent, be defeated. Nothing, I think, would so well meet the present necessities of the case as an increase in the number of Inspectors. The districts of Messrs. Dickinson and Moore may possibly be very well off under the present able and industrious Inspectors, but it is well known that others are not. Let the Inspectors in "fiery districts" be doubled, and by all means let the proper course be adopted by the Government to get the best men for the places. Mr. Woodhouse is a man of great experience in the mining works of a large portion of the kingdom, and he will find many to agree with him that "the present inspection is quite inadequate—there is no question about it." "Most certainly it is utterly impossible for them to do their work properly." Mr. Woodhouse's suggestion of having pupils or assistants to the present Inspectors who could be trained to succeed Inspectors in their appointments was made because, as he says, "I want to do away with the patronage system of appointing Inspectors." "Let men be appointed on their merits, and not merely because they possess influence." Gazetting a man to such an appointment, and training him afterwards, is surely not appointing him on his merits. When a vacancy occurs amongst the Inspectors a great many applications for the place are usually made, and the man who can use the greatest amount of influence with the Government succeeds in obtaining it! Poor colliers! this being the case, your lives are well cared for! Self-interest, party interest, Government interest, must all be satisfied in preference to appointing the ablest man as an Inspector to look after your interest. Red Tape, what evils dost thou work! How have thy slain fallen in battle by sea and land! and how canst thou, doubtless, number amongst thy victims many of the 10,000 dead brought up from the deep dark mines of humane and enlightened Britain.

I now come, Mr. Editor, to head No. 3—the granting of certificates of competency to viewers and under-viewers of collieries. Mr. Moore says—"I have heard suggestions that managers of mines ought to have certificates of ability, like captains of ships, but the cases are not analogous. The captain goes away for months, but a manager is daily looked after by the workmen and others." He further adds—"The manager requires to know how to manage men, as well as to have scientific knowledge, and to be a person of tact, of great common sense, firmness, and kindness, and I do not see how any examination could go into qualifications of that kind." Well, Mr. Moore, let us see how much this "great common-sense" answer of yours is worth. The captain goes away, but he has broad seas, and sun, and starlight, and, to a great extent, he sees his dangers before him; he often has many intelligent passengers with him, and then his sailors are likely to see something of his ability or otherwise for the position he holds. Now the colliery manager goes away too; he goes away from the gaze of an intelligent public into the hidden galleries of a mine. He does "require to have scientific knowledge"—he has matters of science to deal with. How many of the colliery managers in your district have this scientific knowledge, Mr. Moore? The men must all have scientific knowledge too, if you expect them to look after their master. And who are the others you refer to? I suppose you mean the Inspectors! if so, poor looking after the managers will get, when the Inspector has no power over them, and many of them he never sees for more than 12 months. Now, a man is never appointed without being examined to some extent. Mr. W. Mathews says that a man would not be a "rush" the better for any examination he might have, and then he immediately adds—"If I want a man I send for him, and catechise him." Now, Mr. Mathews, why did you not say "examine him?" Why, dear me, if all the men of "great common sense," "tact," and ability "to manage men," had also a certificate of knowledge from a qualified examiner would they not be the better of it; and then, having these certificates, would not, as Mr. Daglish seems to have supposed, make it imperative on anyone to employ him? The truth of the matter is, in all the evidence I have yet read as having been given before the "Select Committee," Mr. Woodhouse's is about the only unbiased and independent one of the lot, all the rest seem to be warding off anything and everything in the shape of any more compulsory changes with respect to the conducting of mines. Now, it is a matter of great surprise to me that so much ignorance should have been displayed as to the practicability of Government examination for managers. The examiners themselves only need be practical men, and then every source of information as to a man's tact, &c., will be open to them, as well as to any mine owner who may wish to employ such a man; only, in addition to "tact," caution, prudence, &c., the man should hold a certificate of knowledge from either an oral or written examination, and let no man be employed without such certificate.

July 18.

A MINING ENGINEER.

OBSTRUCTIVE PATENTS, AND EXHAUSTLESS COAL SUPPLY.

SIR,—When a would-be witty writer is compelled to resort to misrepresentation and distortion of facts, at the expense of another individual, in order to give point to his own dull platitudes, he merely proves that spite, and not humour, is the feeling uppermost in his mind. If it affords your correspondent, "Colliery Engineer," any gratification to whet his small wit at my expense, I can assure him he is quite welcome to do so, and much whetting will be required to bring his wit to a keen edge; meanwhile I can assure the dear man that I shall take no offence. Puerile amusements are suited for children and weak-minded mortals, and I have no wish to invade their privileges. But my worthy friend, "Colliery Engineer," should, for his own sake, make his statements correctly. He first taxes me with the offence of having taken out patents by the dozen. Of this crime, grievous indeed in the eyes of a man who never had an original idea, I have been guilty, but I have never claimed the use of more than five out of the known number of simple un-decomposed substances; and had "Colliery Engineer" ever seen or read my patents he would not have convicted himself by pronouncing an opinion on a subject he was profoundly ignorant of. In his haste to be ill-natured, he has not hesitated to assert that which on the most superficial examination he would have found to be utterly incorrect. Patents are like tickets in a lottery—there are few prizes and many blanks. However, one of my patent processes will this year realise, in conjunction with Mr. Bessemer's pneumatic process, royalties to the amount of 200,000*l.* for the Bessemer Company; whilst I have in operation several other processes, which enable the Titanic Company to make way, and successfully, against the enormous power, practical knowledge, and experience of the Sheffield steel trade. So, when "Colliery Engineer" amuses himself at my expense, I am enabled to sooth my lacerated feelings, agonising under the powerful lash of "Colliery Engineer's" withering sarcasm and pungent satire, with the reflection that one of my patent processes alone is at present of more commercial value than all the patent processes collectively for the improvement of iron and steel which other persons have taken out during the present century, excepting only the Hot-Blast and Pneumatic Patents. "Colliery Engineer" seems to have a very strong animus against patents, so strong, indeed, that it

has prevented him from observing that nearly all my patents relate to the manufacture of steel, and not to iron, as he chooses to affirm. When he has rid the world of obstructive patents, I doubt not he will be able to devise the means of getting all the coal out of that little colliery of 5000 acres, mentioned by Mr. Hinde, in South Wales, which contains 150 billions of tons of coal, much of which, therefore, must lie at a depth of over 3000 miles. And so I bid "Colliery Engineer" heartily farewell.—*Cheltenham, July 17.* R. MUSHET.

EXHAUSTION OF OUR COAL FIELDS.

SIR,—Much attention has of late been directed to this important subject by both practical and scientific men, and our legislators have sought and obtained thereon much valuable but conflicting evidence. The question has, however, been finally settled, and the apprehensions of the public have been found to be groundless, by the overwhelming testimony of a colliery engineer and director, Mr. Thomas C. Hinde, whose evidence before the Committee of the House of Commons, as quoted in last week's *Mining Journal*, shows that the colliery in South Wales of which he is a director extends over 5000 acres of land, and contains no less than 150,000,000,000,000 tons, or, expressed in words, one hundred and fifty billions of tons of coals. Now, a cubic yard of coal weighs about 1 ton, so we have 150 billions of cubic yards of coal in this colliery of 5000 acres, consequently the aggregate thickness of the veins must be a little over 3521½ miles. Were this trifle of coal formed into 150 solid cubes, each of these cubes would measure over ½ miles along each of its edges. Were the whole embodied in one solid prism, the dimensions of that prism would be 56×28×17 miles—a respectable mass, no doubt, to come out of the colliery of 5000 acres, and were the whole of this remarkable deposit of black diamonds excavated and spread evenly over the entire surface of England and Wales, it would convert those regions into one vast coal-hole or cellar, with half-a-mile in depth of fuel spread over its whole superficies. I will not for a moment attempt to impugn the accuracy of Mr. Hinde's calculations and evidence, and he has, no doubt, satisfied himself that the veins of coal possess the aggregate thickness necessary to furnish the quantity of coal he states from the area he describes, but it is to be regretted that he did not further instruct the Committee as to the methods to be pursued in the working of this truly marvellous coal formation—whether by sinking a shaft from the surface, with an up-cast shaft from the Antipodes, or by bringing in an adit level from the Equator. One thing, however, is clear; Mr. Hinde is quite equal to the occasion, and whilst we have him "to the fore" Britannia can keep her pot boiling, and her toes from frost bites. It is a wonderful thing to be practically acquainted with the coal fields of Monmouthshire and Glamorgan, especially when a man is called upon to give evidence to a Committee of the House of Commons.—*July 16.* TON-Y-KAUEL.

COLLIERY RATING.

SIR,—The rating of coal mines in the county of Durham appears to be "one of those things which no man can understand." Each valuer is anxious to make a law of his own, perfectly regardless of the Statute or any Act to Regulate Parochial Assessments. In the *Mining Journal* of July 7 two schemes were propounded:—

MR. COULSON'S PRINCIPLES OF RATING COLLIERIES.	
Coal.—The actual rent coal is now let at per ton—36 <i>s.</i> per ton for coking coal, 26 <i>s.</i> per ton for household coal.	Rateable Value.
Plant.—Annual value or rent a tenant would give for it for the purpose of working the mine.	No deductions for repairs, &c.

MESSRS. TAYLOR AND HEDLEY'S PRINCIPLES OF RATING COLLIERIES.	
Coal.—Rent from 18 <i>s.</i> to 20 <i>s.</i> per ton.	A deduction of 25 per cent. to recoup the corpus, &c., for repairs.
Plant.—6 per cent. on structural value.	25 per cent. deduction for repairs.

I submit the following case, which, I think, will clearly show the fallacy of the above mode of rating:—

Suppose A, the lessee, undertakes to pay 36*s.* per ton for coking coal, or 26*s.* per ton for household coal, to the lessor, and after A has expended 30,000*l.* in sinking, &c., has to expend 20,000*l.* more for pumping power, pumps, &c., which just enables him to produce the same quantity of coal as his adjoining neighbour, B, who has had the good fortune to win his mine, and escape water; hence the outlay of extra capital. According to one of the schemes, A would be taxed at 6 per cent. upon his additional capital of 20,000*l.* expended in pumping power, to make the mine at all productive; and a large proportion of the coals of A are consumed in keeping the water out of the mine.

In the case of *Rex v. Granville, 9 Barn and C. 188*, the lessee was rated for several steam-engines and a railway which was used for the efficient working of the mine. It was held by the Court of King's Bench that he was properly rated. Mr. Justice Bayley therein said, "If the owner had occupied the mine he would have been held to be rated according to the improved value of the property; if he leased to a tenant who is to incur the same expenditure of erecting an engine the owner will receive a less royalty, but as a greater quantity of coal will be raised the tenant will be remunerated for his expenditure." In *Rex v. Tomlinson, 9 Barn and C. 163*, Mr. Justice Bayley said, "Some portion of the rent was to be set apart to form a fund for maintaining or reproducing the subject of occupation; a much less part (if any) of the annual rent of land is wanted for either of those purposes. The whole in some cases, or nearly the whole in others, is the annual profit or value, and in the case of collieries, also, a part of the annual rent must be appropriated to repair and replace the works and engines, and in that respect they were in the same situation as houses. How the deduction of 25 per cent. of coal *per se* is got, I cannot conceive, nor yet can I understand how pumping engines should be capitalised at 6 per cent., which ought to be a deduction from the rent of the coal."

Now, Sir, I think there would be no doubt which of the two collieries, A and B, would let for the largest rent, assuming the tentacle of each to be the same. It has been distinctly decided that a coal mine must be rated at such a sum as it would let for, and not for the full annual value of the coals produced, after deducting the cost of working; and that the sum must be calculated without reference to the money expended in rendering it productive. I have found that the amount of rent is seldom, if ever, to be depended upon in calculating the amount of rate. The test fixed upon by decision, and confirmed by the recent statute, for determining the proper source of the rate, is to ascertain the annual value or rent which might be produced by letting the mine to other persons, with certain deductions, but without reference to the amount of money expended in bringing the mine into active operation.

Mr. Manisty, Q.C., whose opinion was recently taken respecting the rating of coal mines, says:—"The valuer must deduct the amount of the estimated cost of repairs, insurance, and other expenses (if any) from the estimated rent, and so ascertain the net annual value of the property. It is only upon such net annual value, so ascertained, that a valid rate can be made."

The following reply, by the late Mr. T. J. Taylor, to a question by the Select Committee on Rating of Mines, in the year 1857, is clear on this point:—

Question (4799).—"What calculation would you make as to rating the corpus?" Is it not like a terminable annuity?—Yes. I am speaking more particularly with reference to the tentacle rent. The tentacle rent is the remainder value after the circumstances referred to have been allowed for; the redemption of coal, for example, the fund for the interest of capital, all must be paid before any rent can arise from the coal mine. These are allowed for by way of deduction, in order to arrive at the amount of the tentacle rent."

I trust, Sir, the remarks herein contained will be of some service to those who profess to know the law of rating.—*Spring-terrace, Tynemouth.* MOSES PYE.

IMPROVED METALS FOR BEARINGS.

SIR,—Upon several occasions I have noticed enquiries in the *Mining Journal* for Babbitt's metal, and for an explanation of the mode in which it is manufactured, but I am not aware that any satisfactory reply has been given. As I believe the chief purpose to which Babbitt's metal is applied is the manufacture of machinery bearings, perhaps the description of another new bearing metal may not be uninteresting. According to the process of Mr. W. C. Cambridge, of Bristol, the object appears to be to obtain an alloy of fine steel, copper, and tin, at a price which shall permit its general introduction. He takes wrought-iron turnings, 120 lbs.; burrs, or punchings of boiler-plate, 40 lbs.; tin-plate scraps, 40 lbs.; and pure block tin, 2 lbs. to 4 lbs., which is to be placed in moulds, and fluxed with common salt, 8 lbs.; fine white sand, 6 lbs.; and charcoal dust, 4 lbs. The above is then placed in moulds, so that the melted metal may mix with and wholly surround it. Pig-iron is melted, and run in among the mixture.

Under the same patent Mr. Cambridge claims a peculiar construction and arrangement of air-furnace and apparatus for the manufacture of iron, steel, and gun metal, or to assist in or to be used for puddling iron, and so forth; into this heat is to be introduced, comprising atmospheric air and oxygen gas, carbonaceous fuel or matter, such as bituminous or other coal, reduced to dust, and as free as possible from sulphur, coke dust, charcoal, and peat, charred and reduced to dust, or other suitable material for the purpose of changing the nature of the metal. In the furnace the atmospheric air, with this or any other forcing power, carries with it the oxygen gas, carbonaceous fuel, or other substances herein-before mentioned, which are to be brought to act upon the metal so as to displace and agitate the same in a similar manner to puddling, by which process his pro-

posed iron will be formed into a strong cast-iron, and by continuing the process steel may be made which can be tapped out and run into blocks or ingots for that purpose, or remain in the furnace till it may become wrought-iron, which can be run into blocks or moulds for hammering or rolling; or about double the weight of pure copper may be added to it, more or less, allowing the fired air to act upon it a short time, so as to mix it well, by which means first-rate gun metal will be obtained, which may be run into ingots for that purpose. *Barnmouth, July 16.* K. R.

COAL AND OIL AS STEAM FUEL.

SIR,—Permit me to inform your correspondent, "Engineer," that in their operation Coal and Oil as Steam Fuel are exactly different from each other: as he says, greater evaporation is obtained from a carefully-constructed experimental coal furnace than from one in practice; but with the oil, or, rather, the gaseous furnace, the results are the same—the gasifier gives the same light in the parlour that it gives in the shop. You have only to run in a like amount of oil and steam into your furnaces to get the same combustion, steady and continuous, whether in experiment or in practice. I fully expect to obtain an evaporation of 21 lbs. of water to 1 lb. of oil—the capacity of the present boiler is too small to do this. Petroleum is a very slow-burning fuel when burnt alone. In May 18, 1865, my first trial, 81 lbs. of water to 1 lb. of oil per foot super grate per hour, was only vapourised; against this the experimental coal boiler did 201 lbs. One of my earliest trials of water fuel as an auxiliary to the oil, on May 2, 1866, 202-27 lbs. of water in oil boiler was given against the 201 lbs. of the coal boiler.

After the first trial, in 1865, I requested, in order that coal and oil might be burnt on equal terms, to put coal grates to the oil furnaces, and I was told that the oil furnaces were far too small to burn coal to advantage. Now, the furnace is as unfit to burn the oil and water fuel to advantage as it is coal. As to the amount of heating surface required by the oil, that remains to be settled. I am told that the present tubes supplied to a boiler suffices to take up all the heat that the coal can give, and that if a stronger fuel is used more tubes must be supplied; I have seen the great coal boilers in operation burning over 20 lbs. of coal per foot super grate per hour, the fires so intense when the doors were open that I could not approach, and yet the tubes had no flame whatever in them, and it appeared to me they were capable of taking up more heat.

Any boiler having a water space underneath the grate can be adapted to use petroleum; it requires only a smaller chimney funnel, and an addition to the grate to turn it into a trough. One of the principal objections made to me as to the use of oil as fuel to our vessels of war was that our ships having four years' duty might in that time be sent to parts of the world where there would be plenty of coal but no oil. This was a serious objection when I burnt the oil alone, but it is not now. The interchange of a coal grate to a petroleum grate could not, as "Engineer" supposes, be made "almost without interfering with the generation of steam." The boiler must be cold, and then a few hours would suffice for the alteration. Most of the large boilers employed in the Navy have three fireplaces. I see no reason why the centre fireplace should not burn oil, and the other two coal. When our engineers take up the matter, there is no doubt that the use of water fuel will be brought into full use, and then a supply of oxygen can be given in the centre of the boiler that would have great effect on the coal smoke, and cause the coal to be used up more effectually than we use it up at present. This is what we shall come to; probably begin with, introducing our engineers to a new fuel as gently as possible, for the petroleum manages the water fuel better than coal. With oil twice-and-a-half more powerful than our best coal (and that British shale oil), a ship could leave our shores with such an extra amount of freightage as would leave a large profit over and above the expense of the oil. Oil Creek is more than 200 miles, in a direct line over land, from the Atlantic; but at New York coal oil, crude, can be obtained for 5*l.* 10*s.* per ton. (*Mining Journal*, July 14, page 447.) At Australia, California, and other places at about the same price; it is only the natural petroleum at New York that costs 10*l.* per ton; this I do not prefer. It is more fit for illuminating oil; it is those oils that contain the most paraffin that make the best steam fuel. At Trinidad the natural oil can be obtained at a little higher cost than coal or shale oil; the furnace can burn either. The steam-jet subjugates all alike. There is not much difference, therefore, abroad between the price of coal and oil, considering the difference of strength between the two; and the oil against foreign, or even our common coal, is four to five times as strong. One reason why they do not use oil or residuum as steam fuel at Mold is that they have not yet got the process. In conclusion, I should like to ask "Engineer" why he uses the word "impossible;" I thought that ugly word was not known to engineers.

34, Kensington-square, July 17.

C. J. RICHARDSON.

ORE SEPARATORS.

SIR,—Under the head "Mining in Sardinia," in last week's *Journal*, reference is made to a separator in use at the Gonness Mines. This apparatus was fully described and illustrated by Mr. Darlington in the last volume of the "Mining and Smelting Magazine," and it may be as well to remark that it is employed in various countries. It gives good results when operating upon lead ore associated with a veinstone of light specific gravity. But a large loss will be consequent upon treating stuff composed of mineral of nearly equal densities, unless the stuff is previously well sized. The Belgian ore separator is effective under certain conditions, and wherever water is scarce is deserving of attention. In the enrichment of veinstuff the points of consideration are not the peculiarity and apparent excellence of any machine, but a process which shall get rid of the waste at a minimum cost, and leave a maximum quantity of ore for the smelter. If the ores of lead are argentiferous, the silver will, most probably, exist in mechanical combination; hence a fine subdivision of the veinstuff will most likely occasion much loss of the initial quantity of lead present—a high lead produce for the furnace, at the expense of extra cost of dressing, and also undue loss of the precious metal.

Few English establishments have any idea of the actual loss of ore incurred in dressing. No account is kept of the quantity and produce of the tailings; indeed, if a few instances are excepted, it will be found that the principles upon which the separation of substances depend are very little known, and that the belief is erroneously prevalent that a high produce necessarily commands the largest sum of money for the shareholders. D.

RUSSIAN (VYKSOUNSKY) IRONWORKS CO. (LIMITED).

SIR,—In the present state of financial affairs in England, the public mind has rushed from overwhelming confidence in bubble schemes to overwhelming distrust of all commercial enterprise—good and bad investments are treated alike. The solution to this problem is quite clear. Men have rushed into speculations without in the least examining the prospects of the concerns in which they have embarked, consequently many of their pet speculations, which would never have stood two minutes' proper examination, have come to grief, and their money is lost. I now ask your permission to say a few words to the shareholders in the Russian (Vyksounsky) Ironworks Company, for some of the shareholders in this company seem to imagine that because numerous bubble companies have come to grief that everything else in the commercial world is equally unsound; this is absurd in the extreme. I may state that I had occasion to make some enquiries respecting the Russian Iron Company as an investment, when I went into the matter in the following manner:—

1. Had the company ample minerals and fuel to manufacture iron on a large scale?—2. The cost at which the iron could be manufactured compared with its market value.—3. The demand for the iron when manufactured.—4. The capabilities of the works to manufacture the iron on a large scale.—5. The means of communication with the works—railway and river—to dispose of the iron.—6. Did the directors intend to spend a mass of money in extensions and improvements at the works in Russia?

With reference to the first question, I found the company had a track of mineral property as large as the county of Yorkshire, and the greater part of it full of minerals and fuel for the manufacture of iron. I also found that iron can be manufactured at these works as cheap as in Staffordshire, while the selling prices, in some cases, are from 50 to 60 per cent. higher than in England, and in most cases the nett profit ranges from 30 to 40 per cent. over the cost of producing the iron, or, after deducting for all possible contingencies,

would give a nett profit of from 30 to 35 per cent. to the shareholders. And the demand for iron in Russia far exceeds the present power of its production. I also found the means of communication with the company's works all that could be desired for Russia, and that the directors pledged themselves not to rush into any outlay for erecting and altering the works without due enquiry and precaution.

Again, in England many of our ironmasters know to their cost that they have to pay royalties for their minerals to the amount of many thousands per annum. The Russian Iron Company have not a single shilling to pay for their minerals or fuel—all is included in the purchase-money, which is a mere song.

Again, in England we have great perplexities with the workmen, and a severe competition in the iron trade. In Russia, strikes among the workmen are unknown, and the competition in the trade is almost nil, and the Russian Government among the best customers for the company's iron. In either England or France such an ironworks would be worth 2,000,000l. for the purchase-money. The directors have obtained this valuable property for about 60,000 or 70,000l., and all they ask of their shareholders is about 100,000l. to carry on the works, and with the prospects I have before pointed out; in a word, I say it without the least hesitation, that there is no investment for capital at the present moment equal to these ironworks in Russia. This being so, I hope the shareholders will cease their opposition, and alter the Articles of Association to meet the requirements of the company; if this is done, I am sure not one of the shareholders will regret his investment in this company.

In conclusion, I beg to state that I have written this letter without the least knowledge of the directors, neither have I any interest personally in the company.

G. SHEPHERD, C.E.

SLATE QUARRY MANAGEMENT AND ACCOUNTS.

SIR,—I send you the following accounts for publication in the Journal, for the special benefit of the slate quarry interest.

PARTICULARS OF WORKS at Quarry, in Nantlle Vale, under the direction of the Welsh "Eagle":—

1863. Nov. 21—Necessary expenses	£ 46 14 11		
Slate-making	69 5 8	=	£107 0 0
Valuation of slates made			142 2 3/4
Valuation over expenses in the month			£35 1 10 3/4
Preparations, or open- ing new works	£109 9 5		
Dec. 19—Necessary expenses	71 19 11		
Slate-making	95 1 4 3/4	=	167 1 3 3/4
Valuation of slates made			234 4 2 1/2
Valuation over expenses in the month			67 2 10 3/4
Preparations, or open- ing new works	94 4 3 1/2		
Stock of implements, &c.	1 1 2		
1864. Jan. 16—Necessary expenses	68 13 11 1/2		
Slate-making	114 12 9	=	183 6 8 1/2
Valuation of slates made			287 3 4 1/2
Valuation over expenses in the month			103 16 8
Preparations, or open- ing new works	55 0 0		
Stock of implements, &c.	60 9 8		
Feb. 13—Necessary expenses	129 6 3 1/2		
Slate-making	113 14 5	=	243 0 8 1/2
Valuation of slates made			330 0 0
Valuation over expenses in the month			86 19 3 1/2
Preparations, or open- ing new works	124 9 6		
Stock of implements, &c.	7 15 3		
March 12—Necessary expenses	126 5 6		
Slate-making	153 19 5 1/4	=	280 4 11 1/4
Valuation of slates made			319 12 2 1/2
Valuation over expenses in the month			39 7 3 1/4
Preparations, or open- ing new works	102 7 5 1/2		
Stock of implements, &c.	4 0 0		
April 19—Necessary expenses	145 9 8 1/4		
Slate-making	139 13 2 1/2	=	285 2 11
Valuation of slates made			332 4 2 1/2
Valuation over expenses in the month			47 1 3 1/2
Preparations, or open- ing new works	109 1 7		
Stock of implements, &c.	11 11 0		
May 21—Necessary expenses	103 2 10		
Slate-making	128 6 8	=	231 9 6
Valuation of slates made			300 10 8 1/4
Valuation over expenses in the month			69 1 2 3/4
Preparations, or open- ing new works	183 7 6		
Stock of implements, &c.	5 2 0		
June 7—Necessary expenses	62 18 6 1/2		
Slate-making	113 3 7	=	176 2 1 1/2
Valuation of slates made			279 5 9 1/2
Valuation over expenses in the month			103 3 8 1/2
Preparations, or open- ing new works	194 4 2		
Stock of implements, &c.	9 9 8		
July 5—Necessary expenses	94 7 4 3/4		
Slate-making	120 12 8 1/2	=	215 0 1
Valuation of slates made			302 3 3
Valuation over expenses in the month			87 3 2
Preparations, or open- ing new works	209 8 10 1/2		
Stock of implements, &c.	9 16 11		
Aug. 2—Necessary expenses	138 17 3 1/2		
Slate-making	107 3 0 1/2	=	246 0 4
Valuation of slates made			263 6 4 1/2
Valuation over expenses in the month			17 6 0 1/2
Preparations, or open- ing new works	196 17 11 1/2		
Stock of implements, &c.	14 9 0 1/2		
Sept. 10—Necessary expenses	111 4 1 1/4		
Slate-making	107 18 5 1/4	=	219 2 7
Valuation of slates made			292 3 6 1/4
Valuation over expenses in the month			73 0 11 1/4
Preparations, or open- ing new works	199 5 11 1/2		
Stock of implements, &c.	72 10 4		
Oct. 2—Necessary expenses	121 17 3		
Slate-making	125 8 10 1/4	=	247 6 1 1/4
Valuation of slates made			352 17 6 1/4
Valuation over expenses in the month			105 11 5
Preparations, or open- ing new works	151 14 2		
Stock of implements, &c.	16 13 9		
Nov. 5—Necessary expenses	84 12 2 1/2		
Slate-making	143 9 0 3/4	=	228 1 3 1/4
Valuation of slates made			338 16 1
Valuation over expenses in the month			110 14 9 1/4
Preparations, or open- ing new works	149 9 8 1/2		
Stock of implements, &c.	66 9 2		
Dec. 2—Necessary expenses	110 5 10 1/2		
Slate-making	142 18 2	=	253 4 0 1/2
Valuation of slates made			332 19 7 1/2
Valuation over expenses in the month			139 15 7
Preparations, or open- ing new works	174 4 10		
Stock of implements, &c.	6 9 3		
Dec. 31—Necessary expenses	103 6 3		
Slate-making	102 7 11	=	205 14 2
Valuation of slates made			270 19 9
Valuation over expenses in the month			65 5 7
Preparations, or open- ing new works	206 6 5		
Stock of implements, &c.	10 8 0		
Total	£2555 16 0 3/4	£3287 17 4 3/4	£1150 11 9

The preceding account is ingeniously stated to show a profit on the working for fifteen months of 1150l. 11s. 9d., by keeping back, as will be observed in the first column, every month, a large amount, set down as "Preparations, or opening new works," "Stock of implements, &c.," while if these sums, which, of course, it must be presumed were actually expended in the quarry, are included, a loss of 1405l. 4s. 4 1/2d. (the "Eagle" is always particular to a farthing), will be found to be the truth, and the difference between the account rendered and the account as it should have been, is only the trifling amount of 2555l. 16s. 1 1/4d. The total expenditure was 5843l. 13s. 6 1/2d., but only 3287l. 17s. 4 1/2d. have been charged against the slates made in order to create this apparent profit. I know it may be said that these preparations ought to be charged to capital, and that they ultimately lead to increased profits; true, if this were a new and not a developed quarry, on which a great many thousands had been expended in these preparations before. In all new quarries, for a period, capital must be sunk; but in this case the same thing goes on for fifteen months, and gets worse at the end than the beginning. Surely there must be a limit to these preparations, or slate quarries, even under the "Eagle's" vaunted Welsh management, must speedily be abandoned, for not even a working on commission on the value of slates made can possibly keep them going for the sole profit of such skilful managers as make apparent profits out of actual losses; and that the losses were actual I could easily prove by reference to the

cheque-books of the late owners, who had the pleasure every month of paying the difference out of their pockets. But I am going to give the "Eagle" another chance, and append a copy of his abstract of account for working the same quarry for another period of ten months succeeding the last, in order that we may see what profits he realised after fifteen months of preparation in a quarry previously developed by a very large expenditure.

Copy of account furnished by the Welsh "Eagle":—

1865. May 2—Balance	£309 19 7	1865. May 13—Valuation	£173 1 6
May 26—Quarry wages	227 2 7	June 10—Valuation	190 2 9
May 30—Poor rate	3 12 2	July 8—	100 19 8
June 24—Quarry wages	200 15 6	Aug. 5—	184 7 4
July 21—	221 5 9	Sept. 2—	199 5 2
Aug. 19—	235 19 5 1/2	Sept. 30—	292 4 0 1/2
Aug. 19—Harbour dues	2 13 0	Oct. 28—	250 18 8
Sept. 16—Quarry wages	208 16 5		
Oct. 14—	207 4 2 1/2	Total	£1320 19 1 1/2
Nov. 11—	236 12 8	Less 5 per cent. discount	66 0 11
Total	£1856 1 6	Total	£1254 18 2 1/2
Per contra. £1320 19 1 1/2			
Management, 3 1/2 p. ct.	49 10 8 1/2		
Total	£1905 12 2 1/2		
By valuation	£1254 18 2 1/2		
Balance due	£650 14 0		

This abstract it will be seen begins with a balance on May 2 of 309l. 19s. 7d. in favour of the "Eagle," which was the loss from January, and at the end of October the balance claimed to be due to him is 650l. 14s. The result thus being on 25 months' working a loss of at least 2055l. 18s. 4 1/2d. It would appear that in the first account there are no charges included for commission, &c.; if this be so then, of course, the loss is greater than stated.

It will scarcely be credited that these accounts, kept on the "Eagle's" most improved principle, are the accounts furnished by him to the unfortunate proprietors of the very quarry referred to in his first letter, inserted in your Journal of March 3. The following are his words:—"The dissatisfied shareholders called on the writer to report upon the quarry, which was done, to the effect that a large amount of convertible slate rock was destroyed, and thrown into the rubbish heap; also that a great number of splendid slates could be made from that quarry under practical and judicious management. Upon hearing this they requested the writer to place the concern in a proper working order, so as to make more slates, which was done, and in a short time the sale of slates from this very quarry amounted from 7000l. to 7500l., and the concern is still doing well."

Were the shareholders less dissatisfied when he had finished his operations than when he began? Possibly they were not, for their loss per month was greater, and I do happen to know that his accounts did not satisfy them of anything but his ability to bring them in debt.

What became of these 7000l. to 7500l. worth of slates, for making which the "Eagle" in his letter took so much credit, and in his accounts charged such a heap of money, the foregoing narrative will show. I may add in conclusion, that when he wrote that letter which appeared in the *Mining Journal* of March 3 the quarry, which he said was still doing well, had escaped from his sheltering wing.

33, King-street, Cheapside, London, July 18.

THOMAS HARVEY.

PROPOSED REMEDY FOR THE PRESENT DEPRESSION IN THE PRICE OF ORE.

SIR,—I was pleased to see in last week's *Journal* a letter from Mr. John Taylor, headed "Proposed Remedy for the present Depression in the Price of Ore;" and as much can be said for and against the suggestions thrown out by that gentleman for attaining the desired object—viz., a better price for ore—and if, as Mr. Taylor says, the smelters are overdone with the quantities of ores offered for sale, the sooner steps are taken to remedy the evil the better; and as I am more particularly interested in the production of tin ore, I shall only be too glad, so far as I am individually concerned, to act on any feasible suggestion for the obtaining of a better price for this article, which, so far as the county of Cornwall is concerned, is the most important, as it provides fully two-thirds of all the mining labour throughout the county.

1.—If acting on the principle for the certain cure, as Mr. Taylor says, by reducing quantities of tin from many of the mines, how is it possible that they can pay cost; for, as it is, with very few exceptions, the mines are working at a loss, and the adventurers are quite dispirited, and I believe will not generally respond to calls, if made.

2.—Can Mr. Taylor, or any other gentleman, predict the state the county of Cornwall will be in should a few other of the mines be compelled to cease operations? We must not forget that we have a population that must be cared for by some means.

3.—I think if action is taken at all, it must be united; and the time is come for united action to save the county from ruin; and landowners must not, in my opinion, hold themselves aloof, but should take the most prominent part, in order to bring about a better state of things than at present exists.

4.—I am startled at the term Mr. Taylor makes use of, and do hope that his information is not correct, and that the smelters are not *surfeited*, as alluded to, by having tin ore brought to them, and not wanted; my experience is the reverse, for within the last fortnight I have had applications from more than one firm for tin ore.

5.—That there is underselling in the market I can understand, which is a very great evil, as it never increases the demand, but otherwise, and that the smelters would see to it to maintain their fixed price, there can be no question.

6.—Would it not be very desirable to know the quantity of tin in stock throughout Europe, and to what amount that stock has increased during the present year?—*Redruth, July 19.*

WILLIAM TEAGUE.

THE COPPER TRADE.

SIR,—In the present depressed state of trade in this country, with everything so disorganised on the Continent, and with discounts at 10 per cent., it created little surprise that another reduction of 5l. per ton on copper was announced on Monday, thus making the price lower by many pounds per ton than it has been for the last 15 years. The price per unit is now about 13s., and, as it is expected that one-half of the mines in Chili will not pay the cost of production under 15s., it is not likely these will continue working much longer when only 13s. is obtainable. However, if ores are still pressed upon the smelters, it is possible that they may be forced down even to 11s. or 12s. per unit, in which case none but the very richest, if even these, will pay the cost of production. The quantity produced will, consequently, be so small that in the course of the next few months we shall find lower stocks and higher prices than have ruled for many years. In the meantime the best advice I can give to my brother-miners is to reduce our production as much as possible, until we have a general return of prosperity, when copper, which is so unduly depressed, will, perhaps, be among the first to participate in a change for the better.

A SHAREHOLDER IN COPPER MINES.

July 18.

MINING IN THE ASHBURTON DISTRICT.

SIR,—I read with great pleasure in the *Journal* of a discovery made in the WEST BEAM MINES, by the cutting of a new tin lode. The West Beam tin workings are of very ancient date, and a vast amount of labour, as well as great returns of tin, have been made by ancient as well as by modern miners. All scientific tin miners who have inspected the property are unanimous in their opinion as to its being a very valuable piece of mining property. It has been worked from time immemorial, and great returns of both tin and copper made; within the last seven years about 35,000l. worth of tin, as well as several parcels of rich copper ore, have been sold, and operations up to the present time have almost been confined to three or four lodes; these lodes of late have not been so productive as heretofore, and the low price of tin for the present, as well as for some time past, has reduced this extensive mine to a very limited number of hands. Consequently, attention of late has been drawn to the south and parallel lodes, which are known to traverse the set in a beautiful conglomerated mineralised stratification of clay-slate, traversed by a large cross-course, about 27 feet wide, as well as other minor transverse branches. Capt. Hosking, the manager, deserves the greatest praise for his indefatigable energy, perseverance, and mining skill, in making this great discovery, as it has been the general prevailing opinion that the driving of a south cross-cut would prove a failure, and a waste of money. Notwithstanding this, and knowing the district so well as Capt. Hosking does, and that there were parallel south lodes, he prosecuted his views against strong opposition, which has so far proved successful, and bids fair for a further development of a valuable piece of mining property which has hitherto lain dormant. He has driven a cross-cut south from Brothers shaft and lode 103 fms., through a beautiful channel of ground, averaging in price about 40s. per fm., which has intersected a fine lode from 3 to 4 feet wide, producing very good work for tin, giving about 35 fms. of backs from adit; there are other parallel lodes within a very short distance, which will give still greater backs from adit. This portion of the set, which is very extensive on the course of the lodes, bids fair of placing West Beam Mine (late Old Owlcombe Tin Mine) again on the list as one of the greatest tin-producing mines in this country.

I hail with great pleasure the event, the return of the day which I have witnessed, when we shall see the wagons loading away with their then usual large quantities of tin, and to see the miners, tradesmen, and merchants bringing into Ashburton the proceeds thereof, which at the present time is much needed;

the want of speculation and employment for the miner is much felt during the present eventful crisis, but we must hope on, and not despair. It has been mooted about presenting to Capt. Hosking a suitable testimonial for his zeal and integrity, and if ever a man deserved a testimonial it is Capt. Hosking, who merits it not only from the working miner, but from the inhabitants generally. Thousands upon thousands of pounds, year after year, have been brought into Ashburton, as well as large sums circulated in the neighbourhood, entirely through his persevering spirit of enterprise. I hope we shall soon see a great rise in the price of tin, and that his most sanguine expectations of the mines in the neighbourhood will be realised, when we shall again flourish as a tin-mining district.

A MINING SPECTATOR.

THE CAMBORNE DISTRICT—CAMBORNE VEAN.

SIR,—This mine, which has recently been enhanced in market value about 1300 per cent., is situated near the town of Camborne, and is surrounded by some of our most valuable mines (Dolcoath, Tincroft, West Seton, Wheel Seton, &c.). The productiveness of Camborne as a tin and copper mining district is too well known to need any comment here. From the annexed report of the managing agent (Captain N. Clymo), presented at the general meeting of shareholders, on Monday, it will be seen that the mine has considerably improved for copper.

"The 165 is driven east of Grylls shaft 9 fms.; the lode is 3 ft. wide, worth for copper ore 4 tons per fm. The 160, east of Grylls shaft (on the north part of the lode) is driven 9 fms. through a lode, averaging 4 tons of copper ore per fathom; east end, worth 3 tons per fathom; west, 3 tons per fathom. The 135 east of Grylls shaft, is driven 50 fms., the last 9 fms. through a lode averaging 4 tons of ore per fm.; the lode in the winze sinking under this level (down 6 fms.) is 2 ft. wide, yielding good stones of ore. The lode in the winze sinking under the 120 is 1 foot wide, producing 1 ton of ore per fathom. Since our last meeting (owing to the depressed state of the tin markets), our operations on tin are suspended, and our attention directed to the copper department. I never at any former period saw the mine looking so well for copper as at present; the shareholders may, therefore, be fairly congratulated."

At the before-mentioned meeting a call of 1300l. (6s. per share) was made. In the engineering department, Mr. Charles H. Treglowan, of Roseworthy Colne, is appointed to succeed their late able engineer, Capt. S. Grose, deceased. The present appearance of this mine hold out a fair prospect of ultimate success.

Pennu, Camborne, July 18.

ALBERT PRINCE.

MINING IN IRELAND.

SIR,—I have always had the highest opinion of the mining productions of Ireland, and still contend that it will be one of the best copper-producing districts in Great Britain, if judiciously and honestly brought before the public, even with the present depressed price of copper, because the quality is far superior to our West of England mines. What we want is enterprising men and ample capital. I consider over-reporting has done the greatest damage to Irish mining, and but for this there would not still be Cork, Kerry, Tipperary, Wicklow, and other counties unexplored. Let any practical man ask himself—Is it possible, seeing such champion lodes cropping out at surface, that Berrahene could be the only copper mine of magnitude if the country were developed? I say No, because at surface we have lodes quite analogous to Berrahene, north and south of the enormous copper-bearing mine. I commenced working at Gurtavallig Mine in 1862, and for the six months during which the working was continued every fathom excavated gave stronger indications of a mass of copper in depth. In the shallow adit the lode improved from 4 ft. to 15 ft. wide, but to obtain profits it was necessary to continue the sinking to lay open the mine, instead of breaking ore that will not pay. Ballycunnisk and Cappagh are extensive mines, and I firmly believe they will ultimately add materially to the profits of Irish mining. But landlords must aid adventurers by offering facilities to search for minerals, that the labourers, who are ever willing to work if fairly paid, may be kept in their own country, instead of being encouraged to emigrate.

Bishopsgate-street, July 16.

JOHN ROBERTS.

THE PROPOSED SUBMARINE TUNNEL AND RAILWAYS

FROM DOVER TO CALAIS.

SIR,—The question is now being raised as to the "commercial working" of the foregoing proposition, and as I have devoted thirteen years to the consideration of the project, and have had my plans before the public in the *Times*, *Mining Journal*, and *La Presse*, I trust I may be allowed to offer a few practical remarks on the subject, which is one of the most vital interest and importance to England, as it will bring our island into immediate and direct union with the whole of the great continental railways, and in a very few years (if the war be brought to a close) an immense stream of railway traffic will be brought through the Continent and India to the shores of France and Belgium, to await a transfer to England; and the best mode of effecting such economically, safely, and expeditiously will be by direct conveyance through a triple-arch tunnel, having three double-lines of railways, well lighted by gas, and ventilated by a simple but effectual dispersion of air through tubes, constructed and arranged on a plan which has received the mature consideration and approval of eminent practical men. The distance may be stated to be about 22 miles total length of tunnel (in its triple-arch form), including the shore ends or connections with English and French railways; and I consider, with the great facilities of improved machinery and appliances, that the works could be executed well in about five years, if the funds be forthcoming, and judicious arrangements are made for concentrated application of well-directed labour and capital. The amount of cost I have stated as probable to be about 16,000,000l. sterling, and this as a national undertaking (as it should be) cannot be divided between England and France, both being mutually benefitted and advantaged by the connecting belt which will open up such a large commercial communication and international advantage as cannot be over estimated in either country, whose general and permanent action should be strictly and in every just sense co-operative; for united the two great nations will stand and advance together, but divided and opposed each must retrograde and damage each other. Mutuality of interests, and an honest confidence in and between the two nations, will render the submarine tunnel perfectly safe for ages to come, and permanence in such a great undertaking is the great desideratum. I know and feel I have a severe battle to fight, after thirty years' hard work and experience on large works, to get recognition and patronage of my plans and suggestions, which are original and bold, but are feasible and practical, notwithstanding the occasional ridicule and obloquy which has been offered me, but which are deficient of all argument or reason, and in no way can advance the cause which is my main object.

July 17.

W. AUSTIN, C.E.

CHONTALES GOLD AND SILVER MINES.

SIR,—Being aware of the prejudice which existed in Cornwall and London against the climate of the Chontales district, in Nicaragua, and feeling for the anxiety of the parents and other relatives of the numerous Cornishmen who are employed on these extensive works (knowing also that other companies are formed who will require a number of miners and artisans from Cornwall), I feel it incumbent on me, as a native of that county, and intimately acquainted with its mining prospects, to state frankly the advantages or disadvantages which are caused by the climate, and to refute the absurd stories respecting it which were rife when I left England. And this I should have done earlier, but arriving in the fine season, when all was *couleur de rose*, and notwithstanding that the rainy season was bad, I concluded to wait and see its commencement, that I might fairly judge of its worst, as well as its best, phase. I have yet another reason. Preparing to leave, I was unable to procure that precise information I wished respecting the country to which I was going, and the things necessary to provide myself with. Thus many things which were important I had not procured, whilst I had provided a heap of rubbish which was of little or no use, causing me infinite bother in looking after its safety. "Experience docet," having clearly proved the truth of this old adage since leaving, I am anxious that my fellow Cornishmen should have the benefit of my experience.

The district, which is elevated more than 2000 feet above the sea, contains hundreds of mines sprinkled through a dense primeval forest. Owing to the heavy winds which accompany the wet season, blowing down immense number of trees, these woods consist of comparative small, though lofty, timber, although large and splendid trees are scattered plentifully. I should say that these trees are easily blown down, owing to their fast growth under a tropical sun, and having no time to take deep root; thus a tree 200 ft. high would possess roots but 2 or 3 ft. deep, although spread for a great distance. The whole of this vast wooded region, which stretches for a long way north, and east nearly to Bluefields, is tumbled into abrupt hills and mountains, separated by deep and precipitous valleys, enabling the mines to be conveniently worked, but rendering the roads bad and difficult to travel over. From the edge of this forest south, where it is bounded by the Rio Mico, immense grassy prairies, interrupted by mostly bare and rugged mountain ridges, stretch to the shores of the Lake Nicaragua. The wooded parts are infested by tigers, generally of a small variety, and some lions, but these, though doing much damage to the cattle, are not dangerous to man.

The one great disadvantage to the country is the want of roads; the only made road in the country is, I believe, that connecting the lake with the Pacific at San Juan del Sur, made by the Transit Company. Nothing but a mere trace leads anywhere, and this in the summer, when every place that is dry becomes pleasant enough; but with the rain comes mud, and the path is obliterated, leaving a wide-spread, slushy road, through which it is an arduous task to travel. This want of communication is the curse of the country; everything has to be transported, at a high rate, on the backs of mules, and frequently roads crossing rivers become impassable for 10 or 20 days consecutively.

The fine season for the mountains commences in February, and continues to the middle or, perhaps, the end of May. Then sets in the rainy season, amidst storms of thunder and wind. Rains fall heavily in the afternoons, with occasionally some fine weather, and this continues until August, which, with the month of September, is fine. October is rainy; November, December, and January are wet months, and not pleasant to be out in. During the continuance of the dry season the weather is remarkably fine, getting hotter as the wet approaches, but very seldom so oppressive as the heat in Cornwall; indeed, I do not think that the thermometer would indicate a mean heat so high as it would during the hottest part of the summer in our own country. The winter, though wet, is not cold, and persons

HOLLOWAY'S PILLS are decidedly the best remedy for all disorders of the stomach and bowels, the liver and kidneys. They act with so decided an effect, and yet so gently, that people of the most delicate constitutions may take them with the utmost confidence. They do not contain a single grain of mercury or other noxious substance, being composed exclusively of rare balsams. They are, therefore, equally safe and efficacious; and, as a family medicine, they are the most valuable that could be recommended to the people. With these inestimable pills at hand, together with the printed directions affixed to each box, no other medical advice or assistance can be needed. In any ordinary case of sickness.

Mining Correspondence.

BRITISH MINES.

BILLINS.—F. Evans, July 18: In the 90 west the lode is about 1½ ft. wide, and contains stones of lead ore. The 70 west will produce 15 tons per fm. In the 70 east the lode is about 4 ft. wide, looks exceedingly promising, and producing good stones of lead. The pitches are rather improved. One in the roof of the 80 west will produce 15 cwt. per fm., and another 10 cwt. The pitch in the roof of the 70 west produces 15 cwt. per fm.

BOTTLE HILL.—Joseph Eddy, July 19: The lode in the stope in back of the 34, east of Williams's shaft, is still turning out work of moderate quality: the lode is still about 3 ft. wide. The lode west of the western shaft, in back of the 17 fm. level, is now about 6 ft. wide, not so large as we have had, but turning out richer work for tin. The tributary ground is turning out about the same quantity of tin per fathom as it has for the last two or three months past.

BRYN GWYNN.—S. Harpur, July 18: The lode in the 102 fathom level, east of engine-shaft, still continues very large, from 6 to 10 ft. wide. Since my last we have met with a large vein, from which we have abstracted some nice specimens of lead ore: the lode is chiefly composed of fluor-spar and blende, strongly impregnated with lead ore—a fine-looking lode. The lode in the 90 fm. level, driving east of engine-shaft, is 2½ ft. wide, much of the same character as last reported on, and worth for lead 1½ ton per fathom. The lode in the same level, driving west of said shaft, is 3 ft. wide, and worth for lead 2½ tons per fathom. At this point we are opening out a fine piece of ore ground. I have no particular change to remark in the tributary pitches in this level (the 90) since my last. The lode in the 75 fm. level, driving west from engine-shaft, is 1½ ft. wide, and producing saving work for lead ore. It appears that we are passing through a hard bar of ground, consequently our lode is not so productive just now, but hope in a short time we shall get through this, when we shall again meet with good lead-bearing ground. Brooks's rise, in the back of the 65 fm. level, still continues to look well, and worth for lead ore 4 tons per fathom. Edwards's pitch, in the back of the 75 fm. level, on the north and south lode, is much the same as last reported, worth 2 tons per fathom. We are making fair progress with the sinking of Bramwell's shaft below the 65 yard level, by six men. —Michell's Shaft: We have drawn out the water, cleared up the old stuff, opened out the shaft to its proper size, and are now driving a cross-cut towards the lode from the bottom of the shaft. All other points continue much the same as for some time past. We sold on Thursday last 45 tons of lead.

BRYN GWYNN.—H. Nottingham, June 17: The trials we have been making west from the rise in end of south-west level from middle of incline have been unsuccessful, and the character of the ground became less promising for ore the further we went from the rise, which proves, as I have before stated, that this level is in the run of ore-bearing ground going south from incline. I have been much disappointed by this piece of ground not being more productive, and as far as we have driven in this direction I see nothing in the character of the ground to account for it, except the continual closeness of the joints, which also is the cause of its suspending operations in this end for the present. To make further trial of this piece of ground to the south, I purpose driving out this level where it takes the turn to the west, which will be driving south, and parallel with the joint we have been working on; and when far enough south of the present end turn across to the west, to intersect that joint, and continue to prove it by cross-cuts at intervals, unless we should find it wide enough for driving on. The other north and south joint we are working on in the above level is yielding small lumps of ore, and a good deal of spar. We have communicated the rise from the lower level with the above workings, which has further improved the ventilation. I have put the men from this rise to try a joint in the lower level near the incline, which is containing a little ore. We are still getting some ore from Clark's level by stoping, sinking, &c. The cross-cut driving north-west from No. 2 level, near the incline, has not yet intersected the joint we are driving for. The tributaries are getting but little ore this month. We have about 10 tons of ore broken up in mine.

CAPE CORNWALL.—R. P. Goldworthy, July 18: No change to notice in our operations underground, except in the 50 fm. level winze west, which we are sinking on tribute, by six men, where the lode is 7 feet wide; 2 feet of which, on the south lode, is producing good stones of copper ore, the remainder is saving work for tin: this is very promising, and looks well for the 90 west; the present appearances fully warrant our expectations of finding a bunch of copper ore in the 90 fm. level west.

CARADON AND PHENIX CONSOLS.—Wm. Richards, July 19: Very little has been done towards sinking the shaft since the date of my last report, consequently there is no change to notice in the character of the ground. On the 9th instant we disconnected the pumping gear from the old wheel, and on the 12th we attached the rods, bobs, &c., to the new wheel, and it affords me pleasure to inform you that the whole of the new machinery is in good order, and works as well as we could desire. The water underground had risen to the back of the 30 fm. level while we were making the alterations, but by the end of the present week it will be all forced out, and on Monday next the underground operations will be resumed, and continued in the future without intermission.

CARADON CONSOLS.—S. Bennetts, July 17: The ground in both the winze below the 54 and the rise above the 50 continues just as last reported. The 80, west end, is not yet clear of the influence of the cross-course; the lode still unsettled, about 2 ft. wide, containing black and yellow ore, worth 4 to 5½ per fathom. In the east end the lode is 2 ft. wide, of a very promising appearance, and producing ore to the value of 4½ per fathom.

CASTELL CARN DOCHAN (Gold).—J. Barry, July 18: I have no change to notice from underground this week. The quantity of stuff stamped this month is 110 tons. Gold obtained to-day from the amalgamators, 11 ozs. 1 dwt. The weather is very dry, but as yet we have no cause to complain of scarcity of water for the stamps. We have 18 heads going.

CENTRAL MINERA.—T. Hughes, July 19: Victoria Engine-shaft: The lode in the 60 yard level consists of chert, spar, clay, and stones of lead, together a promising lode. The lode in the back, west from the rise, is worth 15 cwt. of lead per fathom. The ground in the 40 yard level is also promising for progress; I expect an improvement in the character as the level is extended.

CORNISH CLAY AND TIN WORKS.—W. H. Wilcock, R. Sarjeant, July 19: We have carried our level through the hard run of ground, have driven ahead 10 fms., and are continuing the drive with energy; the ground being now favourable, we are progressing very satisfactorily. This level will not only command the works of our clay deposits, but by the continuance will also intersect one of our best tin lodes which we have opened, and found some rich stones of tin; the development of this lode, with this large bed of clay about to be laid open will, I trust, place this valuable property in that remunerative position as was first estimated.

CROWAN AND WENDRON.—R. Reynolds, July 18: The shaftmen are engaged sinking the engine-shaft below the 60, and at the same time carrying down ground for bearers and cistern, which will be required shortly for a fixed lift. The lode in the shaft is about 3 ft. wide, the south part of which is producing stones of grey and yellow copper ore, and I hope ere long to be able to report something good from this point. No change in any other part.

EAST CARADON.—J. Truscott, July 18: The 100 east is unproductive; the 90 east is worth 20¢ per fm.; the 80 west, stones of ore; and the 80 east, 18¢ per fm.—South Lode: The 90 east is worth 10¢ per fm.; the 80 west, 10¢; the 80 east, poor; the 70 east, 8¢; and the 70 west, 20¢ per fm.—New Lode: The 70 east is worth 6¢; and the 70 west, 8¢ per fm.

EAST CARN BREA.—I. Richards, July 17: The lode in the 70, west of the old engine-shaft, is 3 feet wide, composed of capel, quartz, mundle, and copper ore, worth ½ ton per fathom; this drive is for the present suspended, to admit of a winze being sunk below this level. Thomas's engine-shaft is in regular course of sinking below the 70, the lode in which is 15 inches wide, composed of quartz, capel, mundle, and a little copper ore.—Thomas's Engine-shaft: In the 70 east, on No. 3 lode, the lode is 1 foot wide—unproductive. In the 60 east, on the south part of No. 3 lode, the lode is 1½ ft. wide, and worth ½ ton of copper ore per fathom. In the 60 east, on the north part of No. 3 lode, the lode is 2 ft. wide, producing 1 ton of copper ore per fathom. The lode in the 50 east is 15 in. wide, and produces a little copper ore. Buckley's shaft is down a sufficient depth for a 60 fm. level; the drivages east and west will, therefore, be commenced at once on No. 6 level. Buckley's shaft, on the 50 west, on No. 6 lode, is suspended to admit of a rise being put up in the back of this level. The lode in the 50 east is worth ½ ton of copper ore per fathom. The lode in the rise in the back of the 50 west is worth 1 ton of copper ore per fathom.

EAST CHIVERTON.—J. Grose, John Nancarrow, July 16: The 35 cross-cut south is still extending in a congenial channel of ground for the production of lead ores, and letting out a little more water than formerly, which we think to be a good indication, and driving by eight men, at 3¢ per fathom. In the adit cross-cut north the ground is a little easier for driving, and now in killas; we hope to intersect something good here before long; this end is now driving by four men, at 5¢ per fm. The engine is working well.

EAST GUNNISLAKE AND SOUTH BEDFORD CONSOLS.—James Phillips, July 19: The lode in the shallow adit continues very large, 2 ft. of which is producing saving work, with every appearance of an early improvement. In the Chimney Rock deep adit we have intersected a cross-course, which is about 1 ft. wide, underlying west. We have not yet seen the lode on the other side, but hope to do so in the course of a few days. All other parts of the mine are looking just the same as when last reported on.

EAST JANE.—Jas. Secombe, T. Hodge, July 14: Setting Report: The 48 to drive south, on the western lode, by six men, at 3¢ per fm.; the ground is favourable, but the lode is at present poor. To drive a cross-cut west from the 48 south, on the eastern lode, by six men, at 4¢ per fm.; this cross-cut is being driven to prove the horse of ground between the two lodes. To drive a cross-cut east from the end of the 36 south, by two men, at 35¢ per fm.; this cross-cut will prove whether any of the lode is standing to the east of that driven upon. To sink a winze in bottom of the 36 south, by two men, at 45¢ per fm. We have about 3 fms. further to sink to reach the 49; the holding of this is very desirable for the ventilation of that level.

EAST ROSEWARNE.—J. James, July 19: In King's shaft, sinking below the 85, the lode is 15 in. wide, producing stones of ore. In the 85, east of King's shaft, the lode is small and poor. There is no lode taken down in the 85, west of King's, since last reported; it was then worth 7½ per fm. I think the next taking down will show an improvement. There is no change to notice in the 85, west of Hallett's shaft. The stope in the back of the 85, west of Hallett's, is worth 16¢ per fm. The stope in back of the 75, east of King's shaft, is worth 8½ per fathom. The two stops in back of the 75, west of King's, are worth respectively 8½ and 7½ per fm.

EAST SNAEFELL.—W. H. Rowe, July 18: I have this week measured and set the bargains here and at East Laxey. The 9, at Glencheer shaft, has this month been driven southwards 3½ fms., and north 2½ fms. The lode in the latter forehead is from 4 to 6 ft. wide, made up of hard quartz, soft killas, and a small leader of lead, with some flooken next the hanging-wall. In the south forehead the quartz in the lode is more friable, and of a gossany character, mixed throughout with blende and spots of lead. In the back level I am glad to notice a species of elvan from the footwall side of the lode, which was observable, but not so much developed, nearer and at the surface. I judge this to be a highly important feature, as I believe dykes or bands of ground of this character have more to do with the formation of deposits of ore, in many instances, than even slides or cross-veins, and which the future of this mine, when further deepened and extended, I think will show. We cannot do better, in my opinion, than to continue driving the 9 in both directions for another month; and should we meet with favourable ground northwards I would again suggest making this level into an adit level, by driving towards and from the main river, the expense of which would be more than saved in the better arrangement of the pit-work, &c., in the event (as now appears probable) of making the present shaft,

the main shaft. The appearances and prospects at the north adit and at Glen Dhuo have undergone little change in the past month.

EAST ST. JUST UNITED.—J. Cartwright, Peter Casley, July 18: We have fixed drawing-lift to the bottom of Phillips's engine-shaft, extended the 20 fm. level 6 ft. west of shaft; we have a kindly lode in the end, 8 inches wide. The branch of tin in the winze below the 10, west of this shaft, is still looking well, and holding down; when the winze is communicated to the 20, present appearance leads us to believe we shall have some good paying tin ground laid open. We shall have the skip-road ready to draw from the bottom of the shaft by the end of the week. At North Bosborne the lode in the 20 east is 2 ft. wide, very kindly; this end is 4 fms. below the winze below the 20, in which there is a good tin lode. At the setting-day, on Saturday next, we intend putting more men in the winze and also the end, so as to effect a communication as soon as possible. We have no doubt there is a long run of tin ground here. At Cranjack shaft, sinking below the 20, the lode is 18 in. wide, but not to value. In the 20 east the lode is 10 in. wide, and poor. In the bottom of the 10, east and west of the shaft, we have a very kindly lode, 12 in. wide, with good stones of ore. On Wheal Venton lode, as we are clearing east, we find the tin ground is lengthening in the bottom. We have ten men and two boys working on tin ground here. This lode has every indication of being a most productive one. We have 16 men working on tribute.

EAST WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, July 18: The lode in the engine-shaft is small, but is producing stones of ore and a little tin. The lode in the 85 west is 2 ft. wide, producing ore and worth 10¢ per fm. The lode in the rise above this level is worth 3 tons of ore per fathom. The lode in the 75 east is from 2 to 2½ ft. wide, of quartz and prlan, which produces strong yellow ore and mundle. We are pushing on the 75 cross-cut north, but there is no change to notice. The lode in the stope below the 75 west is worth for ore and tin 10¢ per fathom. The stope below the 65 is worth for ore and tin 6¢ per fathom.

EAST WHEAL RUSSELL.—J. Goldworthy, July 18: Homersham's shaft is in regular course of sinking below the 140; fair progress is being made. In the 140, east of Homersham's shaft, the ground in the cross-cut driving north is mixed with capel and branches of quartz, and letting out water freely; by present indications we believe the lode is within 2 or 3 ft. The stope in back of the 130, east of Barkell's rise, is worth 14¢ per fm. The stope in back of the 130, west of Barkell's rise, is worth 6¢ per fm. The stope in back of the 130, east of Barkell's rise, has fallen off in value, worth 16¢ per fm.

EAST WHEAL TOLGUS.—J. Goldworthy, July 18: The lode in the engine-shaft is small, but is producing stones of ore and a little tin. The lode in the 85 west is 2 ft. wide, producing ore and worth 10¢ per fm. The lode in the rise above this level is worth 3 tons of ore per fathom. The lode in the 75 east is from 2 to 2½ ft. wide, of quartz and prlan, which produces strong yellow ore and mundle. We are pushing on the 75 cross-cut north, but there is no change to notice. The lode in the stope below the 75 west is worth for ore and tin 10¢ per fathom. The stope below the 65 is worth for ore and tin 6¢ per fathom.

EAST WHEAL TOLGUS.—J. Goldworthy, July 18: The lode in the engine-shaft is small, but is producing stones of ore and a little tin. The lode in the 85 west is 2 ft. wide, producing ore and worth 10¢ per fm. The lode in the rise above this level is worth 3 tons of ore per fathom. The lode in the 75 east is from 2 to 2½ ft. wide, of quartz and prlan, which produces strong yellow ore and mundle. We are pushing on the 75 cross-cut north, but there is no change to notice. The lode in the stope below the 75 west is worth for ore and tin 10¢ per fathom. The stope below the 65 is worth for ore and tin 6¢ per fathom.

FRANK MILLS.—J. P. Nicholls, J. Cornish, F. Cornish, July 18: The 130 south, on the west lode, is yielding a small quantity of saving work, and looking exceedingly well for improvement. The 130 south, on the east lode, is unproductive, but the 130 north, on the east lode, is yielding 1½ tons of ore per fm. We have discontinued taking down the lode behind the 130 south end, and put the men to stop the back of the 130 north for the purpose of carrying air to the north end men; the lode here will yield ¾ ton of lead ore per fathom. We have resumed driving the 115 north, on the east lode, and when it shall have been sufficiently advanced we shall put a winze through to the level below. We have suspended the 115 north, on the west lode, for the present, and are engaged cross-cutting west to ascertain whether any more lode is standing in that direction. The 115 north, on the east lode, is yielding 1½ tons of ore per fm. The 115 north, on the west lode, is yielding 1½ tons of ore per fm. The 115 north, on the east lode, is yielding 1½ tons of ore per fm. The 115 north, on the west lode, is yielding 1½ tons of ore per fm.

GAWTON COPPER.—G. Rowe, G. Rowe, Jun., July 14: The ground in the 60 cross-cut, north from engine-shaft, still continues of a very favourable description for minerals, in which we have just passed through one of the small branches first met with in the level above; at this point it is considerably improved, being chiefly composed of quartz, mundle, and good quality ore. There is no particular change in the appearance of any other point in operation since last reported on; the lode yielding invariably from 2 to 3, 4 and 6 tons of ore per fathom. We are busily engaged in preparing for our next sampling, which we calculate will be over 200 tons of ore.

GOTHIC.—J. Lester, July 18: The lead ore in the 30 continues to yield without alteration since my last report. The lode, however, in the 25 is looking better than I have before seen it. In my next, from present appearances, I am of opinion I shall be able to report the yield per fathom. No alteration in the 17 fm. level cross-cut.

GREAT CARADON.—S. Harpur, July 14: The ground in the shaft is a little harder than it has been for some time past. The engine and pitwork are in good working order.

GREAT LAXEY.—R. Rowe, July 17: In the main engine-shaft the lode continues much as last reported, being large, and worth mainly for blende 70¢ per fathom. We do not yet know the full value of the lode in the 210, driving north of the 210, but having already proved it to be large, worth 10¢ per fm. In the part we are carrying 50¢ per fathom for lead and blende. The 190 end is good, and continues to be worth 80¢ per fathom. The end in the 180 is at present poor. In the 165 we have a large lode, but have not yet proved its full size; the end is looking well, worth fully 120¢ per fathom. We intend commencing a sump in the bottom of this level after another month, where the lode is rich for lead and blende. The 145 is without change. The 110 end, driving north into new ground, continues steadily to improve; the 110 end, west, worth 130¢ per fathom, and the 110 end, east, worth 120¢ per fathom. Some of the lodes above this level are not looking quite so well, but the general produce from this part of the mine continues good. In the sump sinking below this level, at the south end of the ore ground, the part of the lode we are carrying is worth 6 tons of lead and 10 tons of blende per fathom. The risings and sinkings between the day-level and the 110 have held most successfully, thereby completing this entire line of sump. We hope to commence in the course of next month the sinking of the main shaft below the 110 in the heart of the ore ground. We have decided to improve the 80, 70, and 60 ends, driving north of Dumbell's, and in the 50 south. The lode in the 80 is now worth 3 tons of lead and 5 tons of blende per fathom; and the sump sinking below this level, south of Dumbell's, is worth 150¢ per fathom. The 70, which has for a long time been poor, is, we hope, coming to some connection with the ore ground now being opened up in the 80 and 110 below. The 60 north is now worth 50¢, and the 50 south 40¢ per fathom, with appearances of greater promise. In the south ground the copper levels continue mostly as last reported, excepting the 150, which is now producing 12 tons of copper ore per fathom. At Glenroy the work is well being satisfactory. The lode in the 150 is being enlarged from surface down wards, and the new wheel will be completed this week. We expect to have the rods, &c., in working order, and the mine in full work in six weeks time.

GREAT NORTH DOWNS.—Wm. Rich, T. Rich, J. Treddinick, July 18: The 70, west of Sleggan's shaft, is improving, and yielding good saving work. The winze in bottom of the 70 is poor at present. The ground in the 70 cross-cut, north of Sleggan's shaft, is looking very congenial for producing copper, and think we are within a few fathoms of intersecting the lode. The stopes are looking better than usual. The lode in the bottom of Butler's shaft has strong and kindly appearances, but not rich; the indications, however, are excellent, and we think the lode will improve.

GREAT NORTH LAXEY.—R. Rowe, July 18: The engine-shaft is now down upwards of 11 fms. below the 72, and we have just commenced driving levels at this depth north and south. Owing to the dryness of the season, and the increased feed of water during the last fathom of sinking, we are unable to keep the bottom of the shaft dry, and have, therefore, put the men to do the timbering and sheathing in the shaft necessary for the new levels, by which time, in all probability, we shall be able to pump out the water. The lode continues as last reported, 6 feet wide, worth 2 tons of lead ore per fm., but is more kindly and promising in appearance; we expect to break good ore as soon as the levels are opened out. The lode in the 72 north is 5 feet wide, worth 10 cwt. of lead per fm. Having holed the 72 south with the 60, we have resumed driving the ends in both these levels. In the 72 south the lode is at present divided, worth 5 cwt. of lead per fm.; and in the 60 the end is at present passing through a slide; we expect shortly an improvement in both these levels.

GREAT RETALLACK.—W. H. Reynolds, July 18: Since the last meeting of the admirers we have commenced to sink a new trial shaft in the western ground, which is about 6 feet below the adit level, and will, probably, intersect the No. 1 lode at from 10 to 12 fathoms deeper. We may be able to sink this shaft 3 or 4 fathoms deeper, but an engine is required before much can be done. This lode is opened upon at the adit for about 3 fathoms, where it is from 18 inches to 2 feet wide, composed of a beautiful gossan, spar, and prlan, with very fine stones of silver-lead, and I believe, will be found a very productive and valuable lode. On the lode last cut in the adit we have driven about 13 fathoms, and it is still split up with good branches of lead in places. I recommend continuing this end to intersect two or three lodes, one being the Peru silver lode, from which we sold nearly 2000, worth of silver some time ago, and which has yielded large quantities in the adjoining set. The blende pitches on the big lode are yielding about 40 tons per month, and the quantity will be considerably increased when we get the crusher at work. We have, however, just sold upwards of 50 tons, at 55¢ per ton, and shall sample to-day about 40 tons more of very good quality.

GREAT WHEAL BADDERN.—R. Pryor, H. Trengoon, July 14: In the cross-cut at the 75, south of Hill's Brother's engine-shaft, the ground has been a little stiffer for driving the last day or two, which we believe will not continue, as the elvan indicates a change by its appearance for an improvement; the water is abounding largely, and increasing as we make progress. The 63 cross-cut, south of the shaft, is carrying on with all speed; ground much the same during the week, and the water constantly issuing from the end.

GREAT WHEAL BUSY.—W. Rich, J. Treddinick, C. Bawden, July 14: The lode in the 130 end, east of Offord's shaft, maintains its size and kindly character, and will yield 3 tons of ore per fathom. We are urging on the end by six men. Harve's shaft, below the 130, but not yet reached, is looking better than we have hitherto had. We have now begun to drive west from the cross-cut, on the same lode, where it is 4 ft. wide, producing good saving work; this lode has never been seen before, and is whole to surface. We have a cross-cut extended towards

The stope in back of the 130 will yield 8 tons of ore per fm.; we have suspended the sinking in the bottom of this level till the lode is drained. There is no lode yet intersected in the 120 cross-cut south; the ground looks congenial, and is intermixed with branches of mundle and blende. The lode in the 110, east of Offord's, carries good stones of ore; the elvan is entirely out of the end. We have commenced to drive the 100, east of Walker's, on the south lode, which at present is small and poor, but not unkindly. The south lode in the 90 end, east of Walker's, yields good stones of tin of a kindly character. There has been no lode taken down in the 90, west of Fielding's, during the past week. The lode in the winze at the 90, west of Rawling's shaft, is taking its regular underlie north, and yields saving work for the stamps.

GREAT WHEAL VOR.—T. Julian, S. Harris, J. James, July 16: The cross-cut at the 204, north from Metal shaft, is driven about 10 ft. north; the ground is promising for the lode, which we expect to reach in about 2 fms. more driving. The lode in the 194 east is about 15 inches wide, worth 2½ per fathom. The lode driving west from No. 2 winze is about 1 ft. wide, worth 15¢ per fathom. The lode in the 184 east is about 2 ft. wide, worth 30¢ per fathom. In No. 3 winze, sinking below this level, a floor of hard ground is come in, which has contracted the lode; it seems to be wearing out, and shortly we may expect the lode to again open out and become more productive. The 174 east is driving on a lode about 2½ ft. wide, worth 15¢ per fathom. The lode in the 184 west is 3 ft. wide, worth 70¢ per fathom. The lode in No. 3 winze, in the bottom of this level, is 4 ft. wide, worth 60¢ per fathom. The lode in No. 4 winze, in the bottom of this level, is 3 ft. 6 in. wide, worth 70¢ per fathom. We have still a good lode in stoping the bottom of the 174 fm. level, to bring back the water to Ivey's, about 2½ ft. wide, worth 40¢ per fathom. The stope in this part of the mine are still productive, and in no case does the lode exceed 5 ft., about an average of 2½ ft. wide.—Ivey's Shaft: The lode and branches are compact, and producing rich stones of tin; the lode is not yet well defined, worth 60¢ per fathom. The lode in the 174 west end is about 3 ft. wide, worth 40¢ per fathom. The lode in the 162 west is not yet clear of the slide, it requires about 6 ft. more driving to have the lode the height of the end, it is about 3 ft. wide, now worth 15¢ per fathom. The stope in this part of the mine are looking well. The lode in the 167 west is 4½ ft. wide—a very kindly lode. The bob pits and ground for the lode at the 147 are nearly completed, which we shall immediately begin to fix. Edwards's shaft is free from water, and we have begun to sink the shaft by five men. Woolf's engine is set to work, and we shall now begin to fix the new stamps axis. We shall sell our usual quantity of tin this week; we have been delayed a day or two in consequence of changing pitwork for Woolf's. The machinery throughout the mine is in good working order.

HALLENBEAGLE.—Wm. Bawden, July 14: At Pinnler's we have cut pit at the 67, east and divided the shaft from the 56 to the 67, and shall set to-day to sink the shaft below the 67. In the 56, west of said shaft, the lode at present is small, producing stones of tin; the lode is not yet well defined, worth 30¢ per fathom. In the rise in the back of this level the lode is small and poor. In the cross-cut, north of Pinnler's, the end is very porous, and from the character of the ground it is congenial for copper ore. At Reed's shaft, sinking below the 53, the lode in the east end is disordered by a cross branch, at present worth 5¢ per fathom. In the 53, east of Reed's shaft, the lode is split into two branches, worth 4¢ per fm. In the 53, west of said shaft, we have holed to No. 1 winze; the lode is 9 inches wide, producing a little copper ore, but not to value. No. 2 winze, west of Reed's, is worth 4¢ per fm. At Robert's shaft, sinking below the 43, the lode is 18 in. wide, worth 4¢ per fm. The 43 end, west of Robert's shaft, is poor. In the 33 end, west of Robert's, we have cut north, and have seen the north lode; it is 18 in. wide, producing mundle, blende, and a little ore. Bawden's shaft, sinking below the 43, is being sunk as fast as the water will allow us; the lode is 15 in. wide, worth 3¢ per fm. In No. 1 winze, west of said shaft, the lode is 18 in. wide, worth 3¢ per fm. No. 2 winze, west of Bawden's, is about 10 in. wide, worth 2¢ per fm. The winze west of the 43, is being sunk down to water; at present worth 3¢ per fm. In the 40, east of King's, the lode is 6 in. wide, containing spots of copper ore. The 43, east and west of cross-course, on Oaks's lode, at present is poor.

HAWWOOD.—J. Race, July 13: There is an improvement in stope No. 1 at Scar Head to-day; the ore is setting nearly to the bottom of the limestone. I believe we will have a better mine in a few fathoms eastward. Nos. 2 and 3 stopes are each worth 2 tons of ore per fm. The stope in back of the drift west is worth 1 ton of ore per fm. Lode's level has been a little easier to drive this week. No alteration at Trough. I send samples for sale of 24 tons of ore including dust.

LADY BERTHA.—F. C. Harper, J. Metherell, July 19: We are still cutting through the lode in the 20 east, now in between 5 and 6 feet; so far as seen, it is composed of quartz, mundle, and ore, worth of the latter 4 tons, or 12¢ per fm. There is a large quantity of water issuing from this end. The lode in the stope in the bottom of the 30 is about 3 ft. wide, composed of ore, peach, quartz, and mundle, worth of the former 4 tons, or 12¢ per fathom. In the 41 east the lode is between 3 and 4 feet wide, composed of peach, mundle, and quartz, intermixed with ore. Other parts of the mine are much the same.

LAXIYET.—J. Tregey, July 14: We are through the lode I referred to in last week's report; it is about 6 ft. wide, composed of gossan, mundle, peach, and spar, a very promising looking lode, and the ground favourable for driving.

MAUDLIN.—J. Tregey, July 14: Old Mine: The lode in the 80 east end is producing a plenty of mundle, blende, and some good stones of copper ore; in this level west the lode is very large, producing mundle, blende, and good stones of copper ore.—West Mine: In the 20 west end the lode is producing good stones of yellow copper ore.

MINERA UNION.—Wm. T. Harris, July 19: Douglas's Shaft: The sinking progresses as usual; the ground consists of shale and spar; the water is moderately easy.—Brabner's Shaft: The lode in the rise in back of the 80 yard level north is 2 ft. wide, containing stones of lead. The ground in the cross-cut towards the red vein consists of black limestone of a promising character. No. 1 pitch in the back of this level is worth 15 cwt. of lead per fm. No. 2 pitch is worth 10 cwt. of lead per fm. The ground in the big cross-cut consists of white limestone, and from appearances a promising character. The lode in the 70 yard level north is 2 ft. wide, and worth 15 cwt. of lead per fathom, and very promising.

MOLLAND.—T. Bennetts, July 18: The lode in the 72 east is 5 ft. wide, composed principally of quartz, red iron, and spots of grey ore, and letting out water freely, which makes it very troublesome for driving; the country is a stiff killas, congenial for producing ore. In the winze sinking below this level we have not yet met the main part of the lode under the slide; spots of ore are occasionally to be seen, which will, I think, lead to the main part of the lode. In the stope in the bottom of the 32 east, on the north part of the lode, we have not yet got through the floor referred to in my last far enough to say much respecting the value of the lode under there; there is, however, at present to be seen a large lode, with good spots of ore in it. We shall have dressed a parcel of copper ore, about 40 tons.

NANGLE.—J. Lowe, July 17: The ground in the engine-shaft has further improved for sinking. We are making good progress towards the 130. The lode in the 120 west is 4 ft. wide, worth 7½ per fm. for copper. There is a large stope of water issuing from the end, which we look on as a favourable indication. We have holed the rise over the 107. We shall resume driving the 107 west in a few days; this level will go under the shoots of ore gone down in bottom of the 85, Bread and Cheese shaft. We have no other change in the mine.

NANTY.—July 18: In the stope in the back of the 10, 35 fms. north of engine-shaft, the lode is 3 ft. wide, yielding 13 cwt. of lead ore per fm. In stoping the 4 ft. wide winze below the deep adit, 30 fms. north of Boundary, the lode is about 4 ft. wide, yielding on an average about 11 cwt. of lead ore per fm. The dressing goes on as usual.

NEW CORNISH.—J. Richards, July 19: Latchley Consols: The 60, east of the engine-shaft, has been driven during the past month principally by the side of the lode, which shows ore where cut into worth 1 ton per fathom, and is kindly. The lode will now be taken down close home to the present end of the drive. In the 50 east, and east of Sleep's winze, the lode continues a good course of ore, worth 4 tons, or 30¢ per fathom. In the stope in back of the 50 east, and east of Sleep's winze, the lode is worth 2½ tons of ore per fm. In the 40 east, and east of the cross-course, the lode is 18 in. wide, composed of capel, mundle, and some good ore. The lode in the stope in back of the 40 east is worth 2½ tons of ore per fathom.

NEW CROW HILL.—Capt. Trelease, July 17: The 70 east by six men, at 6¢ 10¢ per fathom; lode 18 in. wide, hard and compact, mostly mundle and quartz, with stones of lead ore. The 55 east by two men, at 4¢ 10¢ per fathom; here we have passed through a cross-course about 6 ft., and the lode is now 3 ft. wide, very regular, composed of white iron, capel, carbonate of lime, mundle, and stones of lead ore—looking better. No. 1 stope, in back of the 55, a good looking lode, but not so rich as last reported; set to six men, at 30¢ per fathom, and 5¢ per ton. No. 2 stope set to six men, at 30¢ per fathom, and 5¢ per ton, for lead, worth 12¢ per fathom. No. 3 stope set to six men, at 30¢ per fathom, and 5¢ per ton for lead; the lode here is very large in places, and well mixed—a magnificent looking lode, worth 14¢ per fathom. The 35 east is set to two men, at 4¢ 6¢ per fathom, producing fine stones of lead. Louisa shaft is set to nine men, at 35¢ per fathom; the ground appears gradually changing for the better. This month's lead weighed 11 tons 20 cwt. 1 qr., at 21¢ 2½, amounting to 2528. 88. 1 lb., and amounted to 2500 pounds more than we wanted for pay.

NEW TRELEIGH.—S. Michell, July 19: The lode in the 80, west of the cross-course, is looking a shade better; it is 4 ft. wide, with spots of ore in it. In the 60 fm. level end west there has been a horse of killas in the lode for the last 2 fms., but is now almost gone out again, and am of the opinion that the lode will soon improve. The stope in the bottom and back of this level are yielding over 2 tons of ore per fm. The men are making rapid progress sinking the new shaft below the 51; it is already down 6 fms.; we are sinking by the side of the lode, in order to make great dispatch. The rise in the back of the 51 will be communicated with the 40 to-morrow, when the men will commence stoping. The lode in the 51 west is not looking so well as it did, being now in the unproductive piece of ground met with in the level above, which lasted about 3 fathoms. The 51, driving east, is producing good stones of ore—a kindly lode. The stope in the back of this level will produce over 2 tons of ore per fm.

NEW WHEAL TOWAN.—Richard Pryor, July 18: Towan Lode: The lode in the adit level west continues just the same as when last reported on.—Lead Lode: This lode is about 60 fms. north of the tin lode, and as far as yet seen, it is still 3 ft. wide, composed principally of a fine lead gossan, with rich stones of lead in it. We have now sunk on its course about 4½ ft. below surface; samples of the stuff broken at this point I have forwarded to the office. The lode is all in whole throughout the set, and from the character and indications, I think it an important discovery. It will take us about a week to clear off a portion of the cliff, after which we shall at once begin to sink on the course of the lode.

NORTH CHIVERTON.—Wm. Hancock, July 17: Old Sump-shaft: We have dropped the lift 7 fms. below the 70, forked the water, eased and divided the shaft down to that depth, and commenced clearing the shaft towards the bottom level. No. 2 stope, in the back of the 60 east, is finished, and the men placed in stope in the bottom of the 60 east. The stope ore in the back of the 45, on No. 3 lode, at new engine-shaft, not quite so productive. Other places much the same as last reported on.

NORTH DEVON SILVER-LEAD.—J. Blamey, July 18: I am happy to be able to report a nice improvement in the mine. The new lode, discovered about three weeks since by driving the 20 cross-cut south, is worth 1 ton of lead ore per fm. It is the prettiest lode I ever saw in the mine; not so rich as the canon, but more likely to be lasting. It runs in 80° east of south; it is about 3 ft. thick, and for the 3 or 4 fms. driven on, it is more uniformly productive than anything we have hitherto had. We have now begun to drive west from the cross-cut, on the same lode, where it is 4 ft. wide, producing good saving work; this lode has never been seen before, and is whole to surface. We have a cross-cut extended towards

vein, carrying down good ore the full depth of the winze. When this winze is reached from the level the entire place of rich ground between the two levels will be stopped away, thus securing a large quantity of ore. The effect of this will be to increase the present returns of ore from the mine. It also appears that the company have met with the Roman and first north veins in the 60 ft. level, being the deepest level in the mine, and the Roman vein is expected to be very productive at the deeper levels, when driven. When worked by the Romans this vein was rich to the surface, and it has yielded to a former company from 10 to 12 tons per fathom.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

GREAT WHEAL VOR have sold over 70 tons of tin this week, particulars of which will be given in next week's Journal.

WEST WHEAL KITTY.—The very important position of this mine should stimulate active operations in this district. There can be no doubt as to the value and importance of West Wheal Kitty. The reports received more than bear out the sanguine expectations of the proprietors, and enormous profits must be the result of active operations.

GREAT WHEAL VOR—WEST WHEAL KITTY.—My attention has been directed to a letter of Capt. Thomas Gill (formerly agent to the Duchy, and late manager of Great Wheal Vor) upon WEST WHEAL KITTY, which mine is in the rich district of St. Agnes, containing Old Polbarno, Polbarno Consols, Great Wheal Towan, Great St. George, Wheals Kitty, Pye, Trevaunance, and Basset, all which mines paid enormous profits to their proprietors. West Wheal Kitty, as its name indicates, is immediately to the west of Wheal Kitty, and contains the same lodes, and bids fair to be even more profitable to the shareholders than that excellent mine is. Capt. Gill states that the lode is very large, and has made great deposits of mineral, that it is exceedingly good for its depth, and that in his opinion, if the points now in course of working be vigorously carried on, it will pay the adventurers large dividends for a great length of time. The recent development in West Wheal Kitty is one of the most promising discoveries that has been made in the St. Agnes district for a great number of years.

NEW TRELAUNY SILVER-LEAD MINE.—Capt. J. Gifford (of the Prince of Wales Mine, &c.) has inspected this sett, and made a satisfactory and detailed report. He seems to be most favourably impressed with the company's prospects, and in speaking of the silver-lead lode in the shaft he writes:—"A more kindly lode, without being productive, cannot be seen," and concludes his report as follows:—"I am very well satisfied with this sett, and strongly recommend it as a good speculation. If the workings are carried on as I suggest, and it can be done with speed and economy, you will have a good property."

CALDBECK FELS CONSOLIDATED.—The prospects of these extensive mines continue of the most satisfactory character. The points in operation fully reported on in last week's Journal maintain their value, the continuance of which is of the utmost importance to the ultimate permanent remunerative character of the property.

PENHALE AND LOMAX.—It cannot fail to be satisfactory to the shareholders to learn that the mine has already been drained to the 30, and that it is expected the 40 will be reached by Monday. Several important pitches will be quickly set. The utmost energy has been displayed in the carrying out of all the preliminary operations, and the development of an undertaking of such magnitude and value is of great importance to the district.

GREAT WHEAL VOR.—This mine continues to hold its way. The lode in Frey's shaft is not yet well-defined, but there is every prospect of improvement in depth. It is probable that in another month the 204 will be cut at Metal shaft, and extend the tin ground in depth and length. The levels west of Frey's shaft look well. The produce of the mine still keeps above the average of the county. The total average produce of the tinstuff last month was 4½ per cent, or over 3 qrs. to the ton of stuff. They sold over 70 tons of tin this week.

PRINCE OF WALES.—Since the discovery of the counter lode in East Caradon nothing has attracted so much attention in the mining market as this property is now doing, which is fully accounted for by the fact that 50 tons of splendid quality ore were returned from about 9 fms. of ground. When the steam-engine is completed, which will take place in about a fortnight, operations will be immediately resumed upon this unusually productive course of ore, the quality of which has been proved, by a previous sale, far exceeds that of the rich discovery referred to in East Caradon. The great importance of the discovery to the mining interest of Cornwall will, doubtless, cause the mine to be examined and reported on by all the leading practical authorities.

GOTHIC.—Under economic and judicious management, and with the discoveries already made since the extension of its workings were commenced by the present company, this property bids fair to rank with the richest mines in Cornwall.

TRIPPLES MINE (Mundic, Copper, and Lead).—These mines are situated at Lower St. Columb, near Truro, and are taken up by a spirited company of Cornish adventurers. The mine is divided into 3000 parts or shares, and to be worked under the cost-book system. Full reports of the mine from different mine agents will appear in the Journal of next week. The prospects are reported to be exceedingly good.

EAST CARADON has recently greatly improved, the ends now being worth 1000, to 1200, per fathom. The shares, which were once at 54, to 55, are now only at 2½, to 3, 10s.; and, as the mine is greatly improving, with the resumption of dividends, and many important points to come off, in all probability before the year is out they will be nearly double the present figure.

RATING OF METALLIFEROUS MINES.—The measure recently introduced into Parliament, intitled the "Mines Assessment Bill," the object of which was the rating of metalliferous mines, has been withdrawn. It must be admitted that the whole system of rating is replete with anomalies; why woods, fir plantations, game, shipping, railways constructed below high water mark, or any other source of income, should be exempted from local taxation is difficult to say, and might well form the subject of a parliamentary enquiry; but, at all events, no such injustice has been proved in the exception of metallic mines from rating as to warrant especial legislation.

LLANBERIS SLATE COMPANY.—The necessary works for opening out the different "floors" on the quarry are being vigorously proceeded with, and the results so far are considered highly encouraging, the quality of the slate-rock having greatly improved. The top rock has, unfortunately, turned out much heavier than was expected, consequently slate-making to any extent has been unavoidably deferred. The several floors are in a very advanced state, and Mr. Emerson, the resident engineer, reports that before the end of the year, as estimated by him, eight or nine of the banks will be working at a profit.

MINERAL RIGHTS ASSOCIATION.—Offers have been received for several properties believed to be very valuable. Gold is not only being returned from them, but assays of samples brought home by one of the directors, just returned from Nicaragua, give extraordinary results both of gold and silver. By next mail further advices will be received, when the directors will decide on the course to be adopted.

CHONTALES.—We have taken some pains to ascertain what the news could have been by the last mail to have induced so heavy a decline in Chontales shares; and, so far as we are able to learn, there appears nothing whatever to change the favourable opinion that has been formed of the property itself; but parties who have lately visited the mines express some doubt whether the machinery is the most suitable, and that it is too heavy for transit; and that Capt. Paul, having more people than he can at present conveniently house, fails to keep them under subjection; but this, after all, appears to be but an opinion. It is admitted that all the machinery has been got up the lake and on its way to the mines, and part of it there. The truth is that no men or machinery have been sent out but such as Captain Paul himself requested, and he expresses no doubt but that the remaining parts of the machinery that have not yet reached the mines will be all got there. The wet season has overtaken him before he could get the heavier parts on the mine, and these may have to remain on the road until the next dry season sets in; and, therefore, the erection of the whole of the machinery may be delayed some few months. This appears to be about the whole of the evil, except that by some means or other the Javali Mine, for which the Chontales Company have been so long in negotiation, has been purchased over their heads by another English Company; but this may be no great evil after all, for we are informed that the Chontales Company have completed the purchase of a superior water-power to that of the Javali, the same stream at a lower point, and with a greater fall, which makes them independent of that mine; besides which, the Chontales Company are the proprietors of upwards of 2000 yards of extension of the Javali lode, so that if that mine be so valuable as represented the Chontales Company have the means of proving the same lode extensively in their own sett. We have no doubt in all other respects the directors of the company will take measures to maintain efficient management at the mines; and when the work is in order, and the mines laid open, for which ample time must be given, there is every reason to believe fair success will be obtained.

STOWE IRON COMPANY (Limited).—A petition for winding-up this company by the Court of Chancery has been presented to the Master of the Rolls by Mr. W. Harrison, of the Lund Ulverstone, Lancashire, a creditor of the company, which is to be heard on July 27.

RHOS HALL IRON COMPANY (Limited).—A petition for winding-up this company by the Court of Chancery has been presented to the Master of the Rolls by Mr. W. C. H. Jones, of Aberystwyth, a contributory of the company, and was directed to be heard before the Master of the Rolls on July 27.

The Master of the Rolls has appointed Mr. Samuel Lovelock, accountant, of Coleman-street, official liquidator of the Kumaon and Oude Plantation Company (Limited).

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, JULY 20, 1866.

COPPER.		£ s. d.	£ s. d.
Best selected	ton	84 0 0	—
Tough cake & tile	„	81 0 0	—
Burra Burra	„	84 0 0	—
Copper wire	lb.	0 11½	—
Do. tubes	„	0 11½	—
Sheath. & boltp. ton	86 0 0	—	—
Bottoms	„	91 0 0	—
Old (Exchange)	„	72 0 0	—
BRASS.		Per lb.	
Sheets	per lb.	9d.	—
Wire	„	8½d.	—
Tubes	„	11d.	—
Yellow Metal Sheathing		p. lb.	8½d.
SPELTER.		Per ton.	
Foreign	„	21 0 0	—
To arrive	„	21 0 0	—
ZINC.		Per ton.	
In sheets	„	30 0 0	—
TIN.		Per ton.	
English blocks	„	85 0 0	—
Do., bars (in barrels)	„	86 0 0	—
Do., in faggots	„	88 0 0	—
Strait	„	77 0 0	—
Strait	„	74 0 0	—
TIN-PLATES.*		Per box.	
IC Charcoal, 1st qua.	„	1 10 0	—
IC Ditto, 1st quality	„	1 16 0	—
IC Ditto, 2d quality	„	1 8 0	—
IC Ditto, 2d quality	„	1 14 0	—
IC Coke	„	1 4 0	—
IC Ditto	„	1 10 0	—
Canada plates, p. ton	„	13 10 0	—
Ditto, at works	„	12 10 0	—
* At the works, 1s. to 1s. 6d. per box less.			

REMARKS.—The Metal Market, during the past week, has not shown any marked improvement; a few more orders have, perhaps, been given out, and there has been generally rather more enquiry; but still the metal trade is very far from being in a satisfactory condition. The extensive failure of the Birmingham Banking Co. will tend very considerably to increase the existing depression in the iron districts, where the suspension will be principally felt; and the continuance of the Bank rate at its present high point will prevent any great improvement from taking place. It is very disheartening to find that week after week passes and no reduction is made in the rate of discount; but it is to be presumed that the Directors of the Bank of England have good grounds for continuing the 10 per cent. rate, as it is a most serious interruption to business. The failure of the mediation of France leaves the war in Germany still progressing; but the continued successes of Prussia must, we imagine, soon cause the Emperor of Austria to consent almost to any terms of peace, especially should Vienna be entered by the Prussians, as seems now very probable to be the case; so that we may hope that ere long the present war will be brought to a termination, though how the matter may be hereafter settled remains very uncertain; meantime, it is exercising a very prejudicial effect on all commercial affairs, and a speedy termination will be hailed with pleasure by all engaged in commerce.

COPPER.—On Monday a fall of 5½ per ton was announced by the smelters, making present prices 86½ for sheets and sheathing, 84½ for best selected, and 81½ for tough cake, tile, and ingot; as, however, sales had already been effected under the reduced rates, no actual alteration was made in the market. Since the decline, however, the market has become a little firmer.

YELLOW METAL.—Simultaneously with copper, a reduction of 4d. per lb. was announced, making the present price 8½d. per lb.

IRON.—The Quarterly Meetings of the Staffordshire ironmasters were pretty well attended, but very little business was done, the purchasers present contenting themselves with entering into arrangements for the supply only of their more immediate wants. The finished ironworks are not making more than half time, and as the stocks of pig-iron are increasing, the demand must either improve or furnaces must be blown out. The New South Wales railways are in the market for 4000 tons of rails, and a corresponding quantity of fish-plates. In Welsh there is no positive improvement to note, and buyers of every class of finished iron manifest the strongest disinclination to enter into fresh engagements. The probability of peace on the Continent at first had a favourable effect, but subsequent events have tended to create a feeling of distrust. There are but few specifications in the market, and the amount of business transacted, both on home and foreign account, has been very small. Several of the works will commence stocking in a month's time, unless fresh contracts are secured in the interval. In Swedish iron there is more enquiry, and several parcels are expected in shortly. In Scotch pig-iron the fluctuations during the week have been very trifling, varying between 52s. and 52s. 6d., cash; the last price received from Glasgow was 52s., cash.

LEAD remains much in the same position as last week, the demand continuing very limited.

TIN.—The market for foreign continues very inactive, and prices have further given way. Transactions in Straits are very limited, and the present quotation is 74½ cash. In English no improvement has occurred.

SPELTER.—Business in this metal is not very extensive. On Wednesday 550 tons were put up to public auction, and were all bought in—common plates, in London, at 21½ 2s. 6d.; especial brands at 21½ 10s. at out-ports, common plates at 21½ 2s. 6d., and especial brands at 21½ 7s. 6d. to 21½ 10s. After the auction 25 tons common plates at out-ports were sold at 21½, and 50 tons especial brands at 21½ 5s.; also about 150 tons on the spot have been since sold at 21½ cash, which may be considered the present quotation.

TIN-PLATES are in better request, and the prospects of the future are more encouraging.

STEEL and QUICKSILVER remain as formerly.

The MINING SHARE MARKET has been moderately active this week, but without any material change in prices, except in one or two mines that have been in demand, such as East Basset, Prince of Wales, North Treskerby, and a few others. To show the fall in the price of tin, and its disastrous effects on Cornish mines, Mr. Thomas Richards, of Redruth, has published a statement of prices obtained by Wheal Kitty (Lelant), from October, 1852, to June, 1866. The highest price obtained was 87½ per ton in Feb., 1857, and the lowest 43½ 15s. made in June last. The average price of the fourteen years was 68½ 2s. 7d. per ton, or 24½ 7s. 7d. above the last price obtained. We have reason, however, to believe that when the Bank rate is put down to 8 per cent, tin will be put up. Devon Great Consols, 420 to 440; a dividend of 6d. per share (6144½). Devon Great Consols, 420 to 440; a dividend of 6d. per share (6144½). Devon Great Consols, 420 to 440; a dividend of 6d. per share (6144½). This reduced dividend is in no way caused by any falling off in the mines; but, owing to the price of copper, the directors determined some months ago not to sell any ores under 5 per cent. produce, consequently 200 or 300 tons per month have been accumulating on the floors, so that the stock of ores (with the copper from the tanks) on the mines, the costs of which have been paid, amount to some thousands of pounds, and will come in for extra dividends when the money market gets easier and copper improves. Carn Camborne, 12s. to 15s.; Chiverton, 5½ to 5½; Clifford Amalgamated, 5½ to 6.

West Chiverton, 65 to 70; at the next meeting we understand that the dividend will be 2½ per share, and the balance increased. East Carn Brea, 15s. to 17s. 6d.; East Russell, 2½ to 3. East Grenville, 2½ to 2½; the 75, we understand, has improved. Frontino and Bolivia, 10s. to 12s.; Great Laxey, 19½ to 20½; Great Wheal Vor, 18½ to 19½; Great Wheal Fortune, 35s. to 40s.; South Frances, 19s. to 21. Chontales shares declined to 1½, or 5s. discount, then rose to 2½, and leave off 1½, 1½. Although we feared there might be some delay in the transit of the machinery to the mines, and consequently, a further delay in remittances of gold—and had, in fact, prepared our readers for it—we scarcely expected such a serious fall in the shares, though the public generally rush from one extreme to the other.

The Javali Mine has been obtained by the Central American Association, and the report just issued by Dr. Seeman and Mr. John Holman fully confirms Capt. Paul's reports as to the extraordinary richness of the district for gold. They look upon this mine as almost inexhaustible, and estimate in 50 years, at 25 tons of stuff a day, it would yield 1,365,000½ sterling in gold; and as Capt. Paul's report of this mine is so fully confirmed, the Consuelo, one of the Chontales mines (which we estimated to yield nearly three times the profit of Javali), ought to be worth in itself, if properly managed, more than the present price of Chontales shares. East Caradon, 6½ to 7½; the 100 east is unproductive; the 90 east worth 20½ per fathom; the 80 east, 18½ per fathom. On the south lode the ends are worth 48½ per fathom in the aggregate; the new lode, 14½ per fathom. West Wheal Kitty, 1 to 1½; we understand the mine has been inspected and favourably reported upon.

Great North Laxey, 35s. to 37s. 6d.; the shaft is now down 11 fms. below the 70, and the 80 has been commenced driving; the lode is 6 feet wide, and worth 2 tons of lead ore per fathom. Wheal Chiverton, 6 to 6½; Wheal Seton, 140 to 150. Prince of Wales shares have been very largely dealt in up to 21s., 22s., and leave off 18s. to 19s.; the engine will go to work this month, and the mine be in fork in about 48 hours afterwards. East Basset shares have been in demand, and advanced to 15, 20; an improvement has taken place in the flat-rod shaft, below the 130, down 7½ fathoms; the lode is producing good stones of copper ore, similar to what was first met with in the 130 west. Mineral Rights, ½ to 1; we understand samples of stuff from mines likely to be obtained by this company yield the extraordinary result of 138 ozs. of gold and 111 ozs. of silver per ton. North Roskear, 2½ to 3½, call paid; we understand there is an improvement, sinking under the 194, at about 50 fathoms, east of Pearce's shaft, a bunch of ore having been met with, worth 15½ per fathom. There is no level under this, nor driven to within a long distance of it, and it may be said to be in new ground, in regard to depth, though over it there is a fine lode.

The Mining Market on the Stock Exchange has been rather more active this week. St. John del Reys advanced to 48, 50, on the advices by the mail, the profits for the month of May being 11,367½, against 7487½ for the month of April; this is the largest profit for one month they have ever made. Don Pedro are also a shade firmer at 1-16th to 3-16ths per share. Anglo-Brazilian, ½ dis. to par. Port Phillip shares have advanced to ½, ½; a dividend of 1s. per share will be declared at the forthcoming meeting. Cobres, 10, 12. Cape Copper flat, 1½ to 2½ prem. Chontales have declined, in anticipation of the call, to ½ dis., par. Washoe Gold, nominally, 1 to ½. Panulillo Copper enquired for, ½ dis. to ½ prem. Scottish Mines dull, ½ to ½. Frontino and Bolivia, ½ to ½ dis. Capulas firm, ½ to 1. In English mines, Great Laxey's have been steady at the last quotation, 19½ to 20½. Great Wheal Vor, 18½ to 19½. West Chiverton, 6½ to 7½; the mines never looked better. Chiverton, 6½ to 6½. East Carn Brea shares have been enquired for at ½ to 1. East Caradon, 6½ to 7½, ex div. Chiverton Moors, 5½ to 5½; mine favourably reported on. The changes otherwise are unimportant.

The BARYTA COMPANY, capital 12,000½, in shares of 2½ each, is in course of formation, and is to be incorporated, with Limited Liability. The prospectus, which will be found in another column, states that "the consumption of sulphate of barytes in potteries, glassworks, and in various manufactures, already very great, is daily increasing," and that the mineral from the company's quarry is very pure and free from iron. The enterprise is promoted by the Mines Purchase and Finance Company, who are to receive as purchase money 4000½, and one-tenth of the net profits by way of royalty, the latter commutable for 500 shares, of 2½ each. Mr. Jehu Hitchins's report states the probable profits at 59 per cent, the baryta being considered saleable at 3½ 10s. per ton.

The NORTH POOL MINE is about to be energetically worked by a cost-book company (the prospectus of which will be found in another column), under the management of Messrs. Tredinnick and Co., and it is claimed that as all the elements of success exist in combination in North Pool sett, no hesitation need be felt in prognosticating unusual success. Capt. J. and W. C. Vivian report that it is situated between the rich Tolgus group of mines on the east, and that of the Setons, Croftys, and Roskears on the west, being traversed by the lodes of those mines. It is also parallel with, and has the same cross-courses as, East Pool and Carn Brea Mines, which are only a short distance to the south. The properties of the rock, and the lodes in North Pool for bearing copper have been already proved by the rich formation of ore discovered and taken away by the former company; and as the operations were abandoned at a depth at which nearly all the other mines in the same district began to yield their greatest riches, leaving at the same time every other part of the sett except that in which the ore was met with unexplored.

At Truro Ticketing, on Thursday, 5329 tons of ore were sold, realising 18,266½ 8s. 6d. The particulars of the sale were:—Average standard, 107½ 6s.; average produce, 5½; average price per ton, 37 8s.; fine copper, 306 tons 17 cwt. The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
June 21	3460	108 4 0	6½	128 19 0	12s. 7d.	£67 18 0
„ 28	2156	98 16 0	7½	4 5 0	12 0	60 0 0
July 5	2574	100 12 0	6½	3 19 0	12 0	60 0 0
„ 12	1652	98 0 0	7½	4 7 6	12 0	60 4 6
„ 19	5329	107 6 0	5½	3 8 0	11 10	59 10 6

Compared with last week's sale, the standard is about stationary.

At the Swansea Ticketing, on Tuesday, 1265 tons of ore were sold, realising 6886½ 7s. 0d. The particulars of the sale were:—Average standard, 89½ 8s. 0d.; average produce, 8½; average price per ton, 5½ 8s. 10d.; quantity of fine copper, 107 tons 10½ cwt. The following are the particulars of the sales during the past month:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Per unit.	Ore copper.
June 26	3047	£89 7 0	14½	£ 9 15 9	13s. 6d.	£67 10 0
July 10	2703	89 10 0	14½	9 10 10	13 10	66 19 6
„ 17	1265	89 8 0	8½	6 8 10	12 10	64 1 0

Compared with the last sale, the decline has been in the standard 3½, and in the price per ton of ore about 5s. Compared with the corresponding sale of last month, the decline has been in the standard 3½ 10s., and in the price per ton of ore about 6s. On Tuesday next 2049 tons will be offered for sale, from California, Moonta, Wallaroo, Berehaven, and elsewhere.

The directors of the Devonshire Great Consolidated Copper Mining Company, at their board meeting, held yesterday, declared a dividend of 6144½, being 6d. per share, arising from profits on sales of copper ores sampled in the months of March and April last. After payment of the same, there remains in hand a balance of 16,643½ 18s. 4d. in cash, or bills not at maturity, and reserved fund applicable to the general purposes of the company.

At Par Consols Mine meeting, on July 12, the accounts showed a debit balance of 2194½ 12s. 3d. A call of 8s. per share was made. Capt. Puckey and Hosking say:—"We calculate from this period that our returns will nearly be sufficient to meet the expenses of the tin part of the mine, and as there is every probability of a rise in the price of tin, and copper, we still hope that the mine will again become valuable to the shareholders."

At West Caradon Mine meeting, on Thursday (Mr. Nicholson in the chair), the accounts showed a debit balance of 2145½. A call of 1½ per share was made. Details in another column.

At New Pembroke Mine meeting, on July 10, the accounts showed a debit balance of 250½ 10s. 7d. A call of 1s. 6d. per share was made. Capt. F. and J. Puckey say:—"Our prospects for the future are looking better now than at our last general meeting. In common with almost all other mines, our cost has been considerably increased in the present four months' accounts in consequence of the great influx of water in the early part of the year, and by which our consumption of coals, &c., was greatly increased."

At Silver Vein Mine meeting, on Tuesday (Lord Keane in the chair), it was agreed to lease the property upon terms which are stated in another column.

At Camborne Vein Mine meeting, on Monday, the accounts showed a debit balance of 1367½ 7s. 7d. A call of 6s. per share was made. Capt. Nicholas Clymo reported that they have recently discovered a very promising lode, 2 feet wide, in the 190, which in all probability is the same as in the 150. He never at any former period saw the mine looking so well for copper as at present. The pursers (Messrs. R. H. Pike and Son) estimate that the total costs of the ensuing four months will not exceed 3500½ per month, and during the same period the agent hopes to sell 300 tons of copper.

At Val Toppa Gold Mining Company (annual) meeting, yesterday (Dr. Quin in the chair), the report was received and adopted. Details in another column.

At Yorke Peninsula Mining Company (annual) meeting, on Wednesday (Mr. A. W. Young in the chair), it was stated that the details which the board had to communicate were fully set forth in their report (which had been circulated among the shareholders). There could not be a divided opinion that the report of the mine captain was of a most encouraging character, and, without

Expressing a too sanguine opinion, he considered from that report there appeared to be a fair chance that a paying lode would be opened up at the 35 ft. level. He thought the money in hand would be ample not only to carry the shaft to that depth, but to explore the lode, after some questions had been replied to, the motion adopted to the report and balance-sheet was put and carried. A vote of thanks to the Chairman and directors was passed.

The Port Phillip and Colonial Gold Mining Company will recommend at the half-yearly meeting on July 30 the usual distribution of 1s. per share, being at the rate of 10 per cent. per annum, on account of the profits of the current year's operations, payable on the 1st proximo. The receipts for the six months (which includes only 24 weeks' work) amount to 34,578. 8s. 3d., and the expenditure to 30,958. 19s. 8d., leaving a profit of 3,619. 8s. 7d., to which must be added 4552. 5s. 8d., the amount paid for firewood, timber, &c., on hand, cost of furnace, new stone-breaker, &c.

On the Stock Exchange only a moderate amount of business has been transacted in Mining Shares during the week, and the few alterations of price have, in most instances, been adverse. The following quotations were officially recorded in British Mining Shares:—Great Wheal Vor, 18½; South Wheal Frances, 20; Great Laxey, 19½, 19½; Tincroft, 10; Mwyndy, 1½. In Colonial Mining Shares the prices were:—Cape, 9½, 8½; Port Phillip, 1½. In Foreign Mining Shares the prices were:—Chontales, 2½, 2½, 1½, 2½, 1½; St. John del Rey, 47, 49½, 47, 48½; Washoe, 1½, 1½, 1½; Capula, 1½; Panulillo, 2½, 2½; Pestarena, 1; Don Pedro, 1 prem. to par.

COAL MARKET.—The fresh arrivals this week have been 97 ships. The demand for house coal continued very active, and we have to quote a rise of 6d. per ton since this day week. Hartley's has also been in request, and quote an advance of 3d. per ton. Hetton Wallsend, 21s.; Haswell Wallsend, 20s. 9d.; South Hetton Wallsend, 20s. 9d.; Hartlepool Wallsend, 20s. 9d.; Eden Main, 19s.; South Hartlepool Wallsend, 10s.; Shinciff Wallsend, 17s. 6d.; Hartley's Hartley, 17s. 3d. —5 cargoes unsold; 25 ships at sea.

The Bank of England return for the week ending on Wednesday was again unfavourable, although the account is not altogether without satisfactory items. In the ISSUE DEPARTMENT there was shown a decrease in the notes issued of 367,680l., represented by a corresponding decrease in the coin and bullion on the other side. In the BANKING DEPARTMENT there was shown on the liability side a decrease in the "public deposits" of 565,013l., and a decrease in the "other deposits" of 1,651,546l.,—2,216,559l., from which must be deducted an increase in the "rest" of 34,361l., an increase in the seven day and other bills of 108,229l., leaving a total decrease on the liability side of 2,113,330l. This is represented on the asset side of the account by a decrease in the "Government securities" of 250,000l.; a decrease in the "other securities" of 1,287,285l.; and a decrease in the total reserve, notes and coin, of 576,045l. The decrease in the other securities, which would otherwise be satisfactory, is more than counterbalanced by the withdrawals of private deposits on the other side.

THE COPPER TRADE.—Messrs. Vivian and Younger (July 20) write:—The transactions have been again numerous and considerable, but are all at low prices. On the 16th the English smelters announced an official fall of 1s. a ton on all descriptions of copper; but, as sales had previously been made considerably under the ruling quotations, this fall had no real effect. There are many orders in the market for manufactured copper for India, but money matters prevent their being given out. The demand for small lots of fine foreign copper for the Continent is good, but for bars there is not much enquiry.

THE COPPER TRADE.—Mr. J. Pitcairn-Campbell (Liverpool, July 14) reports:—The market still manifests a drooping tendency, and quotations must again be reduced. Importers have freely met the market, and smelters are willing sellers at a very considerable reduction from their official prices. As low as 85l. has been accepted for India sheets. The mail from the West Coast, with news to June 2, advises very large shipments in the fortnight, equal to 3600 tons pure copper, and this, together with the failure of the Birmingham Banking Company, will not tend to improve matters. The imports from all parts into Liverpool and Swansea during the six months ending the 30th ult. have been—

Ores.	Regulus.	Bars.	Ingots.	Barilla.
1865. Tons 38,267	19,288	617	5516	22,137
1866. Tons 38,989	15,984	344	7318	22,515
1864. Tons 32,150	13,857	682	6252	21,976
1863. Tons 41,052	8,926	392	6862	17,429

Sales since our last—	Regulus.	Bars.	Ingots.	Barilla.
July 4.—527 tons bars, at Swansea, ex Zeta.....	275	0	0	0
July 5.—4 tons bars, at Swansea, ex Janthe.....	75	0	0	0
July 5.—14 tons bars, at Swansea, ex River Thames.....	75	0	0	0
July 6.—50 tons bars, on spot here, out of second hands.....	76	10	0	0
July 7.—628 tons regulus, at Swansea, ex Huasco.....	0	14	0	0
July 7.—447 tons regulus, at Swansea, ex Anne Wood.....	0	14	0	0
July 7.—740 tons regulus, at Swansea, ex River Thames.....	0	14	0	0
July 8.—200 tons bars, at Swansea, ex Colorado.....	75	0	0	0
July 9.—32 tons ore, at Swansea, ex Patagonia.....	0	14	0	0
July 10.—210 tons regulus, at Swansea, ex M. A. Holman.....	0	14	0	0
July 10.—20 tons regulus, at Swansea, ex Hawkeye.....	0	14	0	0
July 10.—261 tons regulus, at Swansea, ex Henry Bath.....	0	14	0	0
July 11.—100 tons bars, at Swansea, ex Colorado.....	75	10	0	0
July 11.—50 tons ingots, at Swansea, ex Colorado.....	80	0	0	0
July 13.—35 tons ingots, at Swansea, ex Colorado.....	80	0	0	0
Quotations are 14s. per unit for ores and regulus, 75s. to 75l. 10s. for bars, 80s. for ingots, and 16s. (nominally) for Barilla. Stocks of copper produce (Chilian and Bolivian) in first and second hands likely to be available—				

Ores.	Regulus.	Bars.	Ingots.	Barilla.
Liverpool.....	2750	3293	1890	436
Swansea.....	9909	6714	1665	387

At Swansea—	Regulus.	Bars.	Ingots.	Barilla.
Barlehan, Africa.....	501	—	—	27
Glen Afton, Dundee.....	—	—	—	—
Chilian, Colon.....	—	—	—	65
At Swansea—				
Black Watch, Taltal.....	671	—	50	—
Colorado, Carrizal.....	—	536	205	—
Pembroke Castle, Tongoy.....	—	398	207	—
Zeta, sundry ports.....	—	558	—	—
Kent, Huasco.....	—	598	—	—
Delta, Caldera.....	127	591	—	—
Bodrydden, Caldera.....	—	720	—	—
River Thames, Coquimbo.....	—	740	14	—
Huasco, Coquimbo.....	—	628	—	—
Sialus Castle, Chamaral.....	625	—	—	—

THE IRON TRADE.—Messrs. G. Bailey Toms and Co. say:—"The iron market has been wholly unaffected by the strike this week of workmen employed at the rolling-mills and forges in the districts bordering on the Tyne and Tees, because at no time in the past three years have the masters' engagements been so rigidly maintained as at present. The iron trade is at the present moment, moreover, amidst all the present depression in the English iron trade, comes the encouraging intelligence from Washington, United States, that increased Customs' duties are proposed to be levied on imports, so as almost to prohibit the shipment to America of several descriptions of metals. Railroad iron, for instance, is to be charged at the rate of 4l. 12s. 6d. per ton in future, in lieu of the present duty of 3l. 5s. per ton, besides freight and insurance; and it is questionable whether British ironmasters can compete with American on these terms; if they cannot, an important market will be closed to us for some time. Such considerations, which would think with those who think that men who are reported to be now out on strike in the English ironmaking districts north of the Humber. There were in 1865 only 66 furnaces at work in the district, whereas this year 90 have been in blast, producing an annual yield of not far short of 1,000,000 tons of pig, while 11 others are now being built or enlarged. The stock is accumulating rapidly in the Stockton and Darlington stores, and the price drops. On the whole, there exists, we think, the prospect of, perhaps, a prolonged lull in that bustling activity which has prevailed till lately at the ironworks along the Tyne and Tees side; but the inherent resources of that locality in coal and ironstone are magnificent, and the restoration of their development will ultimately issue in more secure and permanent success for all concerned in their winning and working."

COLONY OF QUEENSLAND.—The proceeds of the loan of 1864 (for 1,010,000l.)—the balance of which, 446,350l., in debentures bearing 6 per cent. interest, is advertised for sale by tender at the Union Bank of Australia, London, on July 27—are for the following purposes:—

Immigration	£100,000
Railways	847,000
Electric telegraphic extensions	10,000
Public buildings and works	47,000
Advances to municipalities	15,000
	£1,019,000

The previous debt of the colony was 831,236*l.*, and the following statistics, furnished by the Registrar-General, show its steady progress since its separation from the colony of New South Wales, in December 1859:—

	Population.	Revenue.	Imports.	Exports.
1861	28,556	£178,589	£ 742,023	£ 633,476
1862	34,367	238,238	967,950	709,598
1863	45,977	346,431	1,325,509	769,742
1864	61,467	404,720	1,712,263	888,381
1865	74,000	524,198	2,267,950	1,347,054
1866	92,000	631,431	2,505,568	1,160,159

PETROLEUM IN NEW SOUTH WALES.—Reference has upon several occasions been made to the valuable deposits of oil-producing shale existing in New South Wales, and in the Journal of July 7 there appeared a communication from Mr. Mackenzie, in which the position of the several oil properties were carefully pointed out. In another column of this day's Journal will be found an advertisement from the same gentleman, by which the co-operation of Englishmen is sought for extending the oil manufacture of the colony. Mr. Mackenzie is well known both in this country and in Australia, having served his apprenticeship as a colliery engineer to the late Mr. William Peace, the manager of the Earl of Crawford and Balcarres' collieries, and had considerable subsequent experience at that and other collieries in the neighbourhood. On account of ill-health he left this country for Australia, where his symptoms of consumption rapidly disappeared, and he has occupied the position of Government Examiner of Coal Fields in New South Wales for nearly four years. Upon leaving this country he received numerous testimonials as to efficiency and integrity, and his Australian experience has been in every way satisfactory. Mr. Mackenzie's plan and description of the Hartley district will be published in next week's Journal.

Queensland Loan of 1864, £1,019,000.—Tenders for Balance, £446,350.

QUEENSLAND LOAN OF 1864, £1,019,000.—TENDERS FOR BALANCE, £446,350.—The UNION BANK OF AUSTRALIA being empowered as Financial Agents of the Government of Queensland to negotiate the SALE of the remainder of the DEBENTURES issued under Act of the Colonial Legislature, 28th Victoria, No. 28, as amended to 13th September, 1864, entitled "An Act to authorise the raising of Loans on the Security of the Consolidated Revenues of the Colony, for the execution of certain Public Works, and further to provide Funds for Immigration."

Notice is hereby given, that the Board of Directors are PREPARED TO RECEIVE, up to Friday, the 27th inst., at Two o'clock precisely, sealed TENDERS, in writing, of parties who may forward the same, addressed "Tenders for Queensland Loan," or attend in person thereat, for any portion of £446,350, being the balance of the above Loan. Such Tenders will then be opened in the presence of all so attending, and read publicly, and the purchasers be forthwith declared, provided the price be not under the minimum fixed, which will be placed on the table under seal.

These Debentures of £100 and £250 each, with coupons attached, will become due 1st January, 1884, and bear interest at the rate of 6 per cent. per annum, from 1st July, 1866, said Debentures, principal and interest, being made payable in London or Brisbane, at the option of the holder.

Payment for the amounts that may be allotted will be required as follows:—

£15 per £100 Bond, on the purchaser being declared,

£35 per £100 Bond, on 14th September,

And the balance on 15th October.

Forms of application are provided at this office.

By order of the Board,

H. W. D. SAUNDERS, Manager.

38, Old Broad-street, London, 17th July, 1866.

MINING ENGINEER.—The ADVERTISER, a competent and practical Mine Manager, WISHES for a SITUATION at HOME or ABROAD. He has filled a situation in the above capacity at home and abroad for a great many years, and would undertake the management or inspection of any mining property any part of the world. References given of the highest respectability.—Address, "P.," MINING JOURNAL office, 26, Fleet-street.

MINING IN THE NORTH OF PORTUGAL.—A RESIDENT in PORTUGAL, having a VALUABLE SILVER-LEAD MINE, and a COPPER MINE, both in excellent situations, and with water-power, is DESIROUS of MEETING with a PARTY to WORK them, upon very advantageous conditions.—For further particulars, apply to Messrs. JAS. WOOLCOTT and CO., 1, Laurence Pountney-hill, Cannon-street, London, E.C.

A GENTLEMAN, well versed in Joint-Stock Companies, and with a knowledge of Mining and Slate Quarries, is OPEN to an ENGAGEMENT as SECRETARY or MANAGER.—Address, "X. L.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

A GENTLEMAN having an extensive connection with merchants, manufacturers, and others, would be GLAD to UNDERTAKE the SALE of PATENTED ARTICLES or INVENTIONS, upon commission.—Apply to Mr. W. T. RAWLE, patent and mining agent, 8, Small-street, Bristol.

A PARTNER, OR PARTNERS, WANTED, who can command £5000, to JOIN in a COLLIERY of the best house coal in SOUTH WALES, for the further developing the workings, and other purposes. The small coal is excellent for coking.—Apply to "A.," MINING JOURNAL office, 26, Fleet-street, London, E.C.

WANTED, A PARTNER TO JOIN IN OPENING A NEW COLLIERY already proved, near MOLD, FLINTSHIRE.—Address, "J. W. R.," Messrs. Pring and Price, stationers, Mold.

IMPORTANT TO CAPITALISTS AND MINING COMPANIES.—The ADVERTISER, who is a Cornish Mining Captain of 40 years' experience, both in England, Wales, Ireland, France, and Italy, and now resident in the latter country, is OPEN to an ENGAGEMENT to INSPECT MINING PROPERTIES. The Advertiser is also in possession of, and acquainted with, several VALUABLE and extensive mines containing lodes of GOLD, SILVER, LEAD, COPPER, and NICKEL ORES, which he is authorised to DISPOSE OF. He will be happy to afford information on all points connected with mining. All applications to be addressed Captain JOHN KESSELY, Burgo Franco, Ivrea, Italy; or Scopello Mines, Scopello, Val Sesia, Piedmonte.

VALUABLE PRACTICAL INFORMATION ON MINING AND SMELTING—ERECTOR OF COPPER WORKS AT FOREIGN MINES. FOR THE REDUCTION OF LOW PERCENTAGE ORES.—A GENTLEMAN, who is desirous of travelling for two or three years, and who during his absence would wish to be of some service to mine adventurers, begs to OFFER his SERVICES to ADVISE those more particularly concerned in developing mines containing inferior quality ores. It is not for the writer to say whether the large consignments of copper pyrites and other low-grade ores, recently imported from Swansea from California, have been a profitable undertaking or not, but this he can venture to say, that if it had been reduced on the spot to a regulus of 30 to 40 per cent., and thus avoiding shipment of 70 per cent. of the bulk, large profits might have been made. The gentleman who offers his services is a practical miner, and one who can conduct his operations throughout the various stages, has had also FIFTEEN YEARS' EXPERIENCE IN SMELTING COPPER, PEARL, and TIN, and therefore, could render both aid and send into the English market any percentage of a refined state; can also assay tin ores. The difficulty experienced in erecting copper works abroad has been the expense of employing a staff of masons, foremen, &c.; but the writer has plans of both calciners and furnaces, and can superintend their erection with an ordinary mason or two, and thus avoid the heavy expense that has deterred mining companies from trying experiments that might have been very beneficial to their interest; is prepared to meet any respectable company, and to lay before them an estimate of the probable saving in reducing low percentage ores on the mine, and to proceed to any heavy contract. Each candidate first-class credentials.—Address, "B. T.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

PREUSSISCHE BERGWERKE UND HUTTEN ACTIEN GESELLSCHAFT. **PRUSSIAN MINING AND IRONWORKS COMPANY** (Limited under Prussian Law).

PAYMENT OF SECOND CALL.—The Shareholders are requested to PAY to the Direction of the Company, at their offices, No. 30, Benrather-strasse, Düsseldorf, or to any of the undermentioned bankers, on or before the 20th of July next, the SECOND CALL OF TEN PER CENT., or THREE POUNDS PER SHARE.

In accordance with par. 9 of the Statutes, interest at the rate of 5 per cent. per annum is allowed on payments of calls, and the Council of Supervision, being empowered to fix the terms upon which full payment of shares can take place, have resolved to allow interest at the rate of 6 per cent. upon all such full payments made in advance of calls.

The respective "quittungsbogen" should be presented at the office of the company, or at the bankers, in order to have the payment acknowledged on the face thereof, as provided by par. 9 of the Statutes.

THE COUNCIL OF SUPERVISION.

The Bankers of the Company are for England and Ireland: The National Bank, Düsseldorf, June 12, 1866. and its branches.

THE GOTHIC SILVER-LEAD MINING COMPANY (LIMITED), CARDIGANSHIRE.

A minimum dividend up to 10 per cent. guaranteed during the first 12 months. Notice is hereby given, that the CERTIFICATES FOR ALL SHARES registered in this company HAVE BEEN TRANSMITTED by post to EACH SHAREHOLDER respectively.

And further notice is hereby given, that a CIRCULAR WILL BE ISSUED AND SENT FREE TO EVERY registered SHAREHOLDER, ACCOMPANIED by the PAYMENT OF FIVE PER CENT. (half the 10 per cent. guaranteed) on each subscriber's shares, after the 1st proximo.

By order of the Board, ARTHUR COWPER, Chairman.

Royal Insurance-buildings, 67, King-street, Manchester, July 19, 1866.

CONSOLIDATED COPPER MINES OF COBRE.—Notice is hereby given, that a HALF-YEARLY GENERAL MEETING of the Proprietors of this Association will be HELD, in conformity with the Deed of Settlement, at the offices of the company, Gresham House, Old Broad-street, on TUESDAY, the 31st day of July inst., at Eleven o'clock in the forenoon precisely, and

Notice is also hereby given, that a SPECIAL GENERAL MEETING of the Proprietors of this Association will be HELD at the said offices of the company, on the said 31st day of July, at half-past Eleven o'clock in the forenoon precisely, for the consideration of the matters following, and the passing of such resolutions relating to the same, and all incidental matters, as the meeting may think fit—that is to say,

1.—The increasing of the company's capital.

2.—The registering of the shares of the company's capital and of the transfer of the shares.

3.—The cancelling of the now existing certificates of shares, and the issuing of new certificates in exchange.

4.—The repealing of all or some of the company's regulations established by their supplementary Deed of Settlement of 24th November, 1866.

5.—The reviving or re-enacting, either with or without modification, of all or some of the company's regulations established by their Deed of Settlement of 13th July, 1855, and repealed in whole or in part by that supplementary Deed.

6.—The registering of the company under the Companies Act, 1862, as a limited company.

H. R. GRENELL } Directors of the Company.

WALTER SHARP }

Dated this 14th day of July, 1866.

PORT PHILLIP AND COLONIAL GOLD MINING COMPANY. Incorporated by Royal Charter.—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the shareholders of this company will be HELD on MONDAY, the 30th day of July inst., at One o'clock precisely, at the London Tavern, Bishopsgate-street, in the City of London, for the purpose of considering the making a distribution on account of the profit made by the company during the last six months.

By order, C. H. FIELDER, Sec.

N.B.—The transfer books of the company will be closed on Saturday, the 21st inst., and re-open on Thursday, the 2d of August next.

Proprietors will please give immediate notice of any change of address during the last half-year.

METROPOLITAN DISTRICT RAILWAY COMPANY.

Notice is hereby given that the HOLDERS of SCRIP CERTIFICATES are REQUIRED to BRING IN THEIR SCRIP, and PAY A FURTHER SUM OF TEN PER CENT. upon each certificate of £100 to the company's bankers—Messrs. Glyn, Mills, Currie, and Co., Messrs. Roberts, Lubbock, and Co., Messrs. Herries, Farquhar, and Co., on or before the 21st day of July, 1866, in order that such scrip may be registered in shares of the company, pursuant to the company's special Act, and the prospectus under which such scrip certificates were issued.

And notice is hereby given that if default shall be made in bringing in such certificates and payment of the further 10 per cent. for 14 days beyond the day so appointed, such scrip certificates and the amount already paid thereon will be forfeited. By order, GEO. HOPWOOD, Sec.

Dated 6, Westminster-chambers, Victoria-street, S.W., 28th day of June, 1866.

PORTABLE ENGINES, with PIT WINDING GEAR.—Portable in stock up to 14-horse power. Gear to order to suit circumstances.—Apply to BARROWS and CARMICHAEL, engineers, Banbury, Oxon.

PATENTS AT HOME AND ABROAD.—INVENTORS desirous to SECURE INVENTIONS and DESIGNS by PATENT or REGISTRATION, may obtain ADVICE and INFORMATION by applying to Mr. HENRY, Memb. Soc. Arts, Assoc. Soc. Eng., Consulting Patent, Registration, and Copyright Agent, 68, Fleet-street, London, corner of and entrance in Whitefriars-street. Technical translations effected. Drawings and lithographs prepared.

NOTICE.—CAPT. S. M. RIDGE, of LLANIDLOES, MONTGOMERYSHIRE (late manager of the Brynastig and Cwm Ffyn Mines, and others, in Shropshire and Wales), is NOW OPEN to INSPECT and faithfully REPORT UPON ANY LEAD MINE in either of these localities that may be confided to his care, having had better than 30 years' experience in lead mining, as miner and agent.—Address, Capt. S. M. RIDGE, Llanidloes, Montgomeryshire.

CHONTALES.—The rumours relative to the management of these mines, in Nicaragua, have had a most prejudicial effect on the market value of the shares. It is difficult to give credit to all the statements afloat, many evidently requiring confirmation. It is understood that the Javali Mine has been purchased by the Central American Association for 30,000l.

LEAD ORES.

Date. Mines. Tons. Amount. Purchasers.

July 13.—Minera Boundary, &c. 30 £12 7 6 Walker, Parker, & Co.

—Great Laxey.....100 20 7 6 Michel and Son.

Sold in LIVERPOOL (ex *Burgemeister Petersen*), Mr. James Lewis.

July 13.—Alamillos.....37 £11 5 0 Panther Company.

—Linares.....87 11 5 0 ditto

COPPER ORES.

Sampled June 27, and sold at Swansea July 17.

Mines. Tons. Produce. Price. Mines. Tons. Produce. Price.

Copper Ore.....119 9½ £5 8 0 Copper Ore.....89 11½ £6 6 6

ditto.....15 9½ 5 18 0 ditto.....100 8½ 5 3 6

ditto.....47 8½ 4 16 0 ditto.....99 7½ 5 3 6

ditto.....104 8½ 4 15 0 ditto.....95 8½ 5 4 0

ditto.....96 8 4 16 6 ditto.....90 8½ 5 1 6

ditto.....67 8 4 18 0 Concordia.....21 17½ 11 9 6

ditto.....230 9½ 5 11 0 Berchaven.....92 9½ 6 5 6

ditto.....1 10½ 5 17 6

TOTAL PRODUCE.

Copper Ore.....1152 £608 1 6 Berchaven.....92 £577 6 0

Concordia.....21 240 19 6

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Copper Miners' Company.....10½ £120 9 9

Freeman and Co.....96½ 607 3 6

Grenfell and Sons.....99 472 12 0

Sims, Williams, & Co.....11 126 7 3

Vivian and Sons.....293½ 1572 2 0

Williams, Foster, & Co.....259 2494 12 0

Charles Lambert.....295 1493 0 6

Total.....1265 £6886 7 0

Copper ores for sale at Swansea, July 24.—California 93, 75, 78, 76, 70, 80, 60, 24, 19.—Moonta 73, 72, 71, 68, 60, 56, 87.—Copper Ore 100, 100, 100—Calcedine Ore 72, 72—Coarse Metal 20, 20—Calcedine Metal 8—Bottoms Slag 15—Calcedine Ore 2—Wallaroo Ore 77, 76—Berchaven 118, 107.—Total, 2049 tons.

TOTALS AND AVERAGES.

21 cwt. Produce. Price. Standard.

British.....92 9½ £5 6 6 —

Foreign.....1173 8½ 5 7 6 —

Whole sale.....1265 8½ £5 8 10 £89 8 0

COPPER ORES.

Sampled July

WATSON AND CUELL'S MINING CIRCULAR.

WATSON AND CUELL,
MINING AGENTS, STOCK AND SHARE DEALERS, &c.
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

Messrs. WATSON AND CUELL having made arrangements for transferring their weekly Circular, which has so large a circulation during the past ten years, to the columns of the *Mining Journal*, their special reports and remarks upon mines and mining, and the state of the share market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. WATSON AND CUELL have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share dealing than there is at present; and, from the lengthened experience of Messrs. WATSON AND CUELL they are emboldened to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON AND CUELL transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON AND CUELL also inform their clients and the public that they transact business in the public funds, railway, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON AND CUELL are also daily asked their opinion of particular mines, as well as to recommend mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON AND CUELL having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are able to supply shares in all the best mines at close market prices, free of all charge for commission.

PRINCE OF WALES.—To render our remarks of last week more intelligible, we annex copy of plan sent us by the agent. It will be observed that the 45 east has been driven 9 fms. away from the cross-courses. The 45 west is within 9 ft. of the first cross-course, and between the two the ore was found in the 30, leading the agent to expect a good course of ore between them in the 45. When the shares were 5s. each we expressed our opinion that if the course of ore continued (and of which there was every probability) they would reach 57. per share, and we still think so. Since East Caradon rose from 1s. 6d. to 50s. there has not been a better discovery in Cornwall, and by the end of this month or the beginning of next we shall be raising ore. So far as we are personally concerned, the price of shares is a matter of indifference, as we go for the results of mining operations, and if we call attention to it so strongly it is because something really good is required to make up for the losses and disappointments of years.

CHONTALES.—The late advices have confirmed our remarks respecting the probable delay in getting the machinery to the mine—the loss of Javal, and the consequent fall in shares. The Javal Mine, according to some people, when we announced its probable loss, was said to be valuable, chiefly on account of its water-power, but the Central American Company (numbering among its directors gentlemen who are also directors of Chontales) has said they have purchased it for 30,000l., and, doubtless, consider it a great bargain. Chontales shares on arrival of the mail declined to 14s. or a drop of 2l. per share. They are now about par, and lower than we thought they would come; and as we have no reason to change our opinion as to the ultimate success of the company, intending purchasers have now a good time for investing. We may add that the report of Dr. Seaman upon Javal is the strongest report we have yet seen of the richness of the district for gold. It fully confirms all that Mr. Paul wrote, and adds great strength inferentially to his extraordinary reports of Consuelo and other mines belonging to the Chontales Company.

EAST GRENVILLE—"A HOLDER."—The object of the report and its publication are too palpable to deceive anyone. Nearly 1000 shares have been bought up by one gentleman, upon the reports of one of the first agents in Cornwall, and when shares are at double their present price the public will come in.

BARYTA COMPANY (Limited).—The advertisement will be found in another column. One of the directors is at the present moment in Ireland, superintending the grinding of 7 tons of barytes, as several companies and firms have applied for casks as samples, and, on approval, the orders for it will be as much, if not more, than the company can grind weekly. Barytes is in great demand in London, Liverpool, Bristol, and other towns, in a variety of manufactures, and the supply of pure quality, free from iron, such as we have obtained, is limited. The estimated profit, based on careful calculations, shows a working profit of 50 per cent. on the capital; and as 5000 tons could, if necessary, be broken during the next six months, the company shows the profits of successful mining without its risks. As a great many shares have been taken, applications will be attended to in the order they are received.

MINING, MINERALS, AND METALS—PATENT MATTERS.
By M. HENRY, Memb. Soc. Arts, Assoc. Soc. Eng.

Among recent applications for Patents occur the following:—

July 11, No. 1823, J. N. FOURNEL, Nancy, France, manufacture of iron and cast-iron, July 12, No. 1824, Prof. LAW, Baywater, decolorizing products of distillation of shale, coal, &c.—July 16, No. 1829, L. MIGNOT, Paris, preparing soluble alkaline silicates for preserving stone and other materials and for manufacturing artificial stone.

The following Notices to Proceed having been lodged, any opposition intended thereto must be entered on or before Aug. 7:—No. 790, PRIDEAUX, Sheffield, puddling and converting furnaces; No. 792, WILLIAMS, Baywater, puddling iron; No. 796, BAKWELL, Hampstead (communication from Seaman, Pittsburg), rolling and straightening cylindrical metallic rods and tubes.

Among sealed Patents appear the following:—No. 157, ALLEN, Bristol, iron and metal bedsteads;—No. 158, BANTILL, Walworth, coal scuttle;—No. 275, CHILDS, Oxford-street, crushing quartz ores (communication from Karnes, Rochester, U.S.);—No. 663, VEREL, Stirling, distilling oils from coal, shale, &c.;—No. 727, NEWTON, Chancery-lane, melting iron (communication from Haserick, New Hampshire, U.S.);—No. 1449, HASERICK, Southampton-buildings, metal hoops (communication from Alberger, Buffalo, U.S.).

Provisional Protection has been allowed to Messrs. W. H. HALL and J. COOKE, the miners' lamp manufacturers, of Lawley-street, Birmingham, for improvements in miners' safety-lamps, No. 1610. This application was made, per Mr. Henry, patent agent, Fleet-street, on June 13. The specification will not be open to public inspection till December.

Among recently filed Specifications are the following:—No. 2307, UNWIN. The invention consists in introducing into the mass of pig-iron when used in a puddling-furnace a mixture of black oxide of manganese, with wood charcoal, pure sulphate of baryta, and calcined blood, or with any of these three ingredients;—No. 2277, GRAND, describes a process of treating cast-steel, by heating it to white or welding heat, and then subjecting it to welding, forging, hammering, squeezing, rolling, &c., the outside of wrought-iron, or forms or articles of cast-steel receiving a coating or sheathing of wrought-iron, to protect them from atmospheric air;—No. 2298, DEVERNOX describes a fire-place with revolving grate, for the better consumption of peat, coal, or other fuel thereon;—R. A. WRIGHT, the civil engineer and patentee of the smoke-consuming apparatus known by his name, has recently applied for a second patent, relating to furnaces and furnace doors and bars, and has obtained provisional protection on this application, which is numbered 599. The provisional specification was obtained by Mr. Henry, patent agent, Fleet-street.

PURIFICATION OF PETROLEUM.—In the refining of petroleum, or of oils obtained from the distillation of coal, &c., at low temperatures, it is usual to add sulphuric acid as a preliminary process of refining, and Mr. FORDRED, of Blackheath, has proposed to substitute a preliminary alkaline process, and the alkaline foots obtained are treated with steam and an oil separated, which will be found useful in the arts. The oils thus obtained possess valuable drying properties, and may be advantageously employed in conjunction with boiled oil, and with such resins, gums and resins as may be soluble therein, and they may be used with paints and varnishes.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending July 16 was 14,181l.

THE UNITED KINGDOM PATENT FUEL COMPANY (LIMITED).

OFFICES.—26, MARTIN'S LANE, LONDON, E.C.
WORKS.—NORTHFLEET, KENT.

Capital £100,000, in £10 shares: £1 payable on application, £2 on allotment, and £2 on 1st January, 1867, which no further call is anticipated.

This company is established for the purpose of working a new process for the amalgamation of small coal or coal dust. Under this system no tar or other noxious substances are used. The fuel burns entirely without smell, and is available for all domestic uses; it is very durable, leaves little clinker or ash, does not injure the fire-bars of furnaces, is almost smokeless, and will stow in one-fourth less space than ordinary coal; while the cost of production is less than half that of other patented fuels now in use.

The Share List will remain open until the 7th August, and prospectuses, together with all further information, can be obtained from JOHN INMAN, Esq., 13, Throgmorton-street, London; or from E. L. COCKERELL, Esq., at the offices of the company,—July 20, 1866.

THE BARYTA COMPANY (LIMITED).

To be incorporated under the Companies Act, 1862.

Capital £12,000, in 6000 shares of £2 each.

Deposit on application 10s. per share, 10s. on allotment, 10s. at one month, and 10s. at two months after allotment; and no further liability.

DIRECTORS.
W. A. RAINBRIDGE, Esq., Barrister, Temple. [Limited.]
BENJ. COBB, Esq., (Director of the Mines Purchase and Finance Company, S. W. DAUKES, Esq., Whitehall-place (Director of the Railway Passengers' Assurance).
Major PENNETHURST (Director of the Tahiti Cotton and Coffee Plantation Company, Limited).

(Another director to be selected from the shareholders.)
SOLICITORS—Messrs. Bennett and Stark, 4, Furnival's Inn, Holborn.
BANKERS—The Metropolitan and Provincial Bank, Cornhill.

SECRETARY—Mr. Wm. Ward.
BROKER—Jos. Robertson, Esq., Angel-court, Throgmorton-street, and Stock Exchange.

Applications for shares to be made to Messrs. WATSON AND CUELL, St. Michael's-alley, Cornhill; or to the broker, secretary, or solicitors of the company, in the form accompanying the prospectus.

OFFICES.—CROSBY HOUSE, 95, BISHOPSGATE STREET, E.C.

PROSPECTUS.

This company is formed for the purchase and for working a very valuable baryta quarry in the county of Cork, Ireland, for which a new lease for 21 years, from 26th June, 1866, has been granted at a royalty of 1s. per ton.

The consumption of the sulphate of barytes in potteries, glass works, and in various manufactures, already very great, is daily increasing, and while the quality of it from this quarry is pure and free from iron (see analysis), Mr. HITCHINS, who has thoroughly inspected the property on behalf of the directors of the Mines Purchase and Finance Company (Limited), states that 5000 tons could, if necessary, be raised in the next six months.

Mr. HITCHINS entered into the necessary calculations on the spot as to the cost of raising and preparing the baryta for the market, and estimates the profit. In the rough stone at 8s. per ton, which on 100 tons a week would give an estimated profit of £40, or £2000 per year. On the ground article the profit, he calculates, will be £1 6s. per ton, which on 75 tons per week would be £37 10s., or £2025 per year, or nearly 50 per cent. upon the capital.

These calculations have been based upon the quantities which the directors have been led to expect, the correspondence placed in their hands, that a market can be at once found, but it will be observed by Mr. HITCHINS's report the quantity to be raised can be limited only by the number of hands employed for a very long time to come.

The company have been offered in the neighbourhood the necessary mills, with five pairs of stones for grinding the baryta, and the facilities for shipping are all that can be desired.

The price to be paid to the Mines Purchase and Finance Company (Limited) is £4000 and 1-10th of the net profits as royalty; but the Baryta Company to have power to commute the said royalty at any time for 500 shares of £2 each.

COPY OF MR. HITCHINS'S REPORT.

St. Michael's House, St. Michael's Alley, Cornhill, E.C., London, March 28, 1866.

The barytes, or as it is called in that vicinity, the White Mine, is situated on the side of a hill on rising ground, about two miles easterly of the town and sea port of Bantry, in the county of Cork, Ireland. Having examined the lode, and considered its capabilities and prospects, in accordance with your instructions, I now submit my report thereon. The lode has a run a little inclining north of west and south of east, without any perceptible underlie pervading the generally prevailing schistose rock of the country, and has to some extent been explored (some 1500 tons having been raised) by an adit level driven up from the rivulet some 50 fms. or more, and 8 fathoms deep, to where are two shafts and the main workings, there showing a width of 8 ft., and no wall to be seen on either side, 4 ft. or so of which, in the centre, being the white quality, and the remainder more or less stained or coloured; and in the sink below the adit, about 6 to 8 ft. deep, the lode and quality of the barytes appear to me to improve; beyond this are workings and drifts both east and west for a length altogether of nearly 20 fms. I look at the main workings as being the most worthy of notice, and in depth more particularly, where I believe the quality as well as quantity will improve, and the expense of keeping the water not much; and I am fully convinced that many thousands of tons can be raised at a very cheap rate, at first (say) not over 2s. 6d. to 3s. per ton, of such quantities, or better than the samples I have brought with me, which I had broken for that express purpose; of these I take the whitest, with only spalling and picking over, and find it to be one-third of the whole, and the quantity to be obtained after a little preliminary preparation for open working, will be limited only by the number of hands employed for a very long time to come; this open cutting will more fairly develop the vein in every respect, and decide the future system of working. The sett, which is about a mile in length, is sufficient for more workings than will be required, and its elevated situation renders the carriage of the ore to port or to mill very easy, and consequently cheap. Labour is sufficiently abundant, at 10s. per week for good men, and although gradually increasing in price, I believe will continue to be cheaper than in England. Freight to the ports of Liverpool, Bristol, or London vary according to circumstances, but as there is, I believe, no other export from Bantry, vessels delivering Indian corn, or meal and coals, will readily accept low rates rather than pay for ballast, and any size vessel can come to this place; the last freight to Liverpool was 7s. 6d. per ton; to London, 5s. to 10s. per ton; and to Bristol by the Welsh colliers at equally cheap or cheaper rates. As to water-power at the mine or quarry, I calculate that it will be sufficient to run a mill, even in summer. The mills offered to be let at £125 per year rent, which is a very extensive and valuable site, and might be let off, and can, with remodelling, be readily rendered available, having a never-failing supply of water—in fact, a whole river of about 40 ft. fall, and three water-wheels and five pairs of millstones. From the best information I can gather, it is estimated the barytes, in the rough delivered, sells at 25s. to 30s. per ton. The cost to raise—say 3s.; carriage to port, 2s.; shipping, 6d.; royalty, 1s.; freight, 7s. 6d. to 10s.; and management on 2000 tons a year, 1s. 6d. to 2s., amounting to 17s., leaving a profit of 8s. per ton, or 47 per cent. on the output.

If ground and bleached—say, selling price £3 10s. delivered .. £3 10 0
Costs above £5 17 0
Grinding, 50s. £5 17 0
Grinding, 50s. £5 17 0
Packages 10s., and commission 3s. 0 13 0 = 2 4 0

Profit, 50 per cent., or £1 6 0 per ton.
but a great portion of the better or white sort, will not require bleaching at all, only the more coloured will have to be submitted to that process, therefore there is a field for good investment, to realise greater profits, as regards raising versus bleaching. The consumption of this article is very great; I can vouch for the quantity to be obtained, and, can, therefore, recommend your acquiring this property if offered at a fair price, as the capital required to work will be comparatively small, not more than £2000, including the additions to the mill for grinding, and in three months mineral will be in the market.

CERTIFICATE OF ANALYSIS.

Sample of Barytes. Per cent.

Sulphate of barytes 82.46

Silica, sulphate of lime, and other constituents (undetermined) 17.54—100.00

Specific gravity at 60° Fahrenheit 4.09

NOTE.—This sample of barytes is very free from iron; it contains a little more than four-fifths of its weight of sulphate of barytes. Samples of this mineral, consisting entirely of sulphate of barytes, have a specific gravity of 4.5, or even higher.

Signed, JOHN NEWLANDS, F.C.S.

THE GLYNRHONY SLATE COMPANY (LIMITED).

LANBERIS, CARNARVON.

Nominal capital £20,000, in 2000 shares of £10 each, 2000 of which have been issued, and £20,000 thereon fully paid-up.

Present issue of shares, 1500, being half the remaining capital.

Deposit £1 on application, and £2 on allotment.

Calls not to exceed £3 per share, at intervals of not less than three months.

The quarries held by this company, and situated on the south side of the Lake of Llanberis, have been so far developed during the last five years as to leave no doubt of the complete success of the undertaking.

The slate produced is very superior in quality, and is in great demand; and, although the very limited capital of £20,000 has been expended on the works, the profits during the past year have been upwards of £2000.

The present yield is nearly 400 tons a month, of the value of £2 6s. 8d. per ton, the sales for twelve months to March 31, 1866, amounting to £9688, as compared with £3098 in the year to March 31, 1862.

The time has now arrived when a judicious expenditure of £15,000, in erecting slab machinery and further extending the works, will unquestionably return very ample profits, the increased value of slates being estimated on reliable authority at from 1000 to 1200 tons a month, which, at the very moderate profit of 15s. per ton, will yield a dividend of from 25 to 30 per cent. on a capital of £35,000, with every prospect of further increase.

The Carnarvon and Llanberis Railway (which is expected to be completed during the present year) runs through the slate-yard of the company, and will effect a great saving of expense—about £700 a year on the present make—and will otherwise add to the great advantages which these quarries possess.

The directors have determined upon a present issue of 1500 shares only.

Prospectuses, with full details, and forms of application for shares may be had of the acting secretary, at the office of the company, 27, Bucklersbury, London; at the quay office of the company, Carnarvon; or from W. W. CRAIG, Esq., the manager at the quarries, who will afford any further information that may be required.

J. BEDDOW, Acting Secretary.

CAPT. J. RABEY OFFERS FOR SALE FIFTY SHARES, at the net price of £3 per share, in the CAL-R-PANT MINE, joining the great Minera Mine, and one of the best prospects in the district, being all whole ground, and the mine paying for itself now at the shallow depth of 40 yards.—Address, Capt. J. Rabey, Coodport, near Wrexham, Denbighshire, North Wales.

Notices to Correspondents.

* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt: it then forms an accumulating useful work of reference.

COST-BOOK SYSTEM.—1. If a person having two calls on mining shares unpaid allows them to be forfeited at a meeting held for the purpose, is he liable for any future calls and to the two past calls unpaid?—2. If a person relinquishes shares has he any further liability whatever?—W. [When an adventurer's shares are forfeited by a meeting held for the purpose all further liability upon them ceases, but the two past calls must be paid. In case of the relinquishment of shares, the adventurer must pay his proportion of all outstanding liabilities, and his connection with the company will forthwith cease.]

THE ABERAMAN IRONWORKS COMPANY.—When danger was looked for by the anticipated collapse of the Aberaman Ironworks Company (late Crawshaw Bailey's), there were some letters at the time in your valuable Journal, calling the attention of the subscribers to that unfortunate undertaking as to the manner in which the company was formed and the directors appointed, and an opinion expressed that the latter were amenable to the shareholders for alleged mismanagement, and launching the company under questionable pretences; not having heard or seen anything for some time in the Journal, I should be obliged to any of your readers if they can give any information as to the present position or future prospects of this company, as I consider it is a great reflection upon the directors, as men of honour and commercial integrity, not to have returned the amount subscribed by the public to this undertaking long since, especially as they have shown such utter incapacity of successfully carrying out what they had undertaken.—A SHAREHOLDER.

NEW FLOATING HYDRAULIC MACHINE.—Your correspondent, "C. H. D.," in describing the machine constructed by Mr. Roman, compares it with an ordinary undershot water-wheel, but in a manner that renders the comparison practically useless. What is the meaning of the statement—the useful effect of a small machine first tried was 3-4 times that of an undershot wheel at the same place? It would be as conclusive to state that the engineer was 6 ft. 2 in. high, and weighed 16 stone, his engine was 3½ horse power. With what size wheel does "C. H. D.," compare the float-chain machine? Surely not with an undershot wheel the size of the carrying wheels, whilst if he take the chain as representing the circumference of the undershot wheel, he would lead us to believe that the 36-foot machine is nearly five times as powerful as a 70-ft. undershot wheel, whilst the larger machine would be thirteen times as powerful as a 140-ft. wheel. Now, if "C. H. D." had stated the size of the wheel with which it was compared, one might have judged whether the machine is any improvement or otherwise.—H. J. C.

THE MINING JOURNAL,
Railway and Commercial Gazette.

LONDON, JULY 21, 1866.

THE ROYAL COMMISSION ON THE DURATION OF OUR
COAL SUPPLY.

The Royal Commissioners (of whom the Duke of ARGYLE is President) for enquiring into the probable duration of our coal supply have held several meetings. At their last sitting they divided the subject of their enquiry into several parts, and under each heading appointed a committee to undertake specially that particular branch of the enquiry. It was then arranged that the Commissioners should hold their next meeting for business early in September, when, no doubt, they will agree upon the plan of procedure to be followed. Mr. J. F. CAMPBELL, who has already acted in a similar capacity to several Royal Commissions, and whose experience and ability render him a most able auxiliary, has been appointed secretary.

In the House of Commons, on Thursday, Col. SYKES asked whether the Royal Commission was authorised to bore for coal in different parts of Great Britain; and whether it was understood that expenses might be incurred to an unlimited extent without the previous approval of the House of Commons? Mr. WALPOLE replied that there was nothing in the Commission giving the Commissioners authority to bore for coal, and it was not usual for such a Commission to incur expenses without reference to the Home Office, which would, if useful, place the application before the Treasury.

Mr. GLADSTONE said it was desirable that the answer given by the Home Secretary to the question of Col. SYKES should be correctly understood. Did the right hon. gentleman say that the Coal Commission had no power to authorise boring? The words given such power were in the original draft of the address, but were struck out.—Mr. WALPOLE said the right hon. gentleman was perfectly correct; there was no such power.

THE SELECT COMMITTEE ON MINES.

JULY 6.—Present: Mr. NEATE (in the chair), Messrs. AYRTON, FAWCETT, FOSTER, KINSAID, LIDDELL, POWELL, WOODS, and General DUNNE.

Mr. EDWARD JONES, manager of the Lilleshall Collieries, Shropshire, was recalled.—I know a man named Enoch Onions, who gave evidence before this Committee to the effect that he himself was not summoned, but that he came in the place of Edw. Beard, of Smethcott, near Wellington, who he said dared not come for fear of being discharged. I know Edw. Beard very well. I should be very sorry to discharge a man like him, or indeed anyone who chose to come up here and give evidence. If he had come to me, as the manager of the mine, would have thought it my duty to send him up. The facts, however, are these:—Beard misbehaved himself four years ago, and I suspended him. Owing to the misconduct of Beard and others the whole of that pit was upset. It was the only pit we were working directly ourselves, and not through charter-masters. There were no middlemen there. It was fitted up on the best possible principle with regard to ventilation and everything else, and I had the most scientific men down to examine it. It was the pit which the Duke of Sutherland and Prince Edward of Saxe Weimar went down. The men worked that pit for a little over twelve months, and in that time they rebelled twice.

Prof. FAWCETT: In what way did they rebel?—They were dissatisfied with their earnings; and yet, at the same time, they were getting 10 and 15 per cent. more than the wages in the other works generally. They reduced their hours of labour from 10 to 9 hours, to suit their own convenience, and we quietly gave way to that. They then wanted to reduce the term of labour to 8 hours, and asked for an advance of 2d. per ton upon the cutting price. I said—"No; we cannot afford to give it." They struck immediately, and the work was stopped for nearly twelve months, to our serious loss. Notwithstanding his share in all this, we took Beard back, and he is now in our employ. Beard's misconduct consisted in his being a prominent man in getting up the strikes. He was not dishonest, or guilty of any other misconduct.

By the CHAIRMAN: The reason he and his fellows were allowed to receive 10 to 15 per cent. more than the people in the works generally was that in that pit they were working directly through me, and not through a contractor. The bulk of the work under the contractor is stint work, and a man can do his stint—that is, a day's work—in 4½ or 5 hours. The stint varies according to different degrees of hardness, from 6 to 13 yards, 1 yard in.

By Mr. LIDDELL: Onions stated that he was discharged, but he did not know for what reason; but, as a matter of fact, he was not discharged. Four years ago he was a charter-master, with others, under the company. He kept a shop, and the others publichouses, contrary to the by-laws, and he was told he must give that up. He did not choose to do so, but went into the town of St. George's, where he keeps a shop to this day. The coal owners, in the interests of the miners, do not permit the charter-masters to keep shops or beerhouses. [The vituperated the evidence of Onions in a variety of other particulars.]

The CHAIRMAN: I do not say you would, but is there an idea prevalent among the workmen that if they come up to give evidence it would be remembered against them?—I am certain there is not.

By Mr. LIDDELL: I heard the evidence of Mr. Woodhouse on the subject of training Inspectors, and do not agree with it, as tending to a great deal of confusion and insubordination. And, moreover, these pupils would be learning a valuable business at the expense of the owners and lessees, and might a some future period use the knowledge against them. I should say that the owners would, under any circumstances, object to it. I can speak for Lord Gansville and the people acting with him at Lilleshall. If you want more Inspectors, take them at once, I should say, from the best practical men now to be got—men already trained in the mines, and knowing the mode of work in the districts they are wanted for. There is nothing in the Act to prevent the Government employing any number of additional Inspectors it may think fit.

Prof. FAWCETT: Mr. Woodhouse spoke of one assistant to each Inspector, and that surely could not produce any inconvenience?—Yes, it would; and the men, and the contractors, who ought to know better, got little-tattling to the Inspectors, whereas if they mentioned what they did not like to me it would be remedied at once. With assistant Inspectors we should be in constant confusion. Who would be the manager of large works like Lilleshall? I should be sorry to be, with these fellows coming in.

Prof. FAWCETT: You are assuming that they would be there very frequently, but they could not visit your colliery constantly if there were only one assistant to a whole district?—The thing is not at all necessary. I think the mines are sufficiently inspected; and I disagree with Mr. Woodhouse altogether. He speaks of fiery mines as needing more inspection than others, but there is more difficulty in dealing with carbonic acid gas than with carburised hydrogen. A fiery mine needs attention every day, and there are minutes which no Inspector can attend to.

By the CHAIRMAN: I have known mines where engineering pupils are allowed to go down by the permission of their owners, and am not aware of any inconvenience arising from that.

By Mr. WOODS: We could now forbid such pupils going down, but we should object to have that imposed upon us by Act of Parliament. We are always happy to see the regularly appointed Inspector.

Mr. JAMES ROBERTSON, owner of Blairdardie Colliery, Dumbar-tonshire, a member of the executive committee of the mine owners of Scotland, a Justice of the Peace, and Provost of Raefrew, said that his men were paid by weight, but he believed that they preferred

being so superior that it realises from 68s. to 70s. per ton, and the firm have sufficient orders in hand to last them for some months to come. So many mines produce baryta, and so much difficulty has heretofore been found in disposing of it, that the proposition of Mr. Wm. Unwin, of Sheffield, to apply it to the purifying of iron will be received with favour by a large number of mine adventurers. He proposes a special treatment for the iron whilst in the puddling furnace. To about every 100 lbs. weight of pig-iron, the proportions of 2 lbs. weight of wood charcoal, 2 lbs. weight of black oxide of manganese, 1½ oz. of pure sulphate of baryta, and 1 oz. of calcined blood, all which ingredients are to be pulverised and mixed together, and applied and thrown into the puddling furnace in two or three parts at intervals, by the puddler or workman, so soon as the iron is fused, so that the ingredients may be well worked into the iron by the puddler with an ordinary puddler's bar, until the iron is sufficiently puddled for being drawn out of the furnace. He claims the use of black oxide of manganese in combination with all or any of the aforesaid ingredients of wood charcoal, sulphate of baryta, and calcined blood, in the manufacture of iron in the manner aforesaid; but he does not claim the use of wood charcoal, sulphate of baryta, and calcined blood combined, or any of them alone, nor the use of black oxide of manganese alone, as any part of his invention.

REPORT FROM NORTHUMBERLAND AND DURHAM.

JULY 19.—The ironworkers' strike has commenced here in earnest, the men having refused to accept the proposed reduction of 10 per cent. in their prices; the reason given by Mr. Kane, their acting delegate, being that the price for finished iron in Staffordshire was not reduced last quarter-day. The manufacturers appear to be extremely careless as to the production of plates, bars, &c.; this proves most conclusively that the trade is not profitable at present—indeed, many small concerns have been temporarily shut up, Bidlington being one of those, and a general disposition is evident either to reduce the make or close the works altogether for a short period. At Abbott's Works, Gateshead, the manager has warned the men that if they do not go in during the present week they will be locked out for three months, and we are sorry to write that this appears from other circumstances to be no empty threat, but a settled determination. Unless the men agree to a reduction, it is extremely probable that this struggle will be a most protracted one. The managers at the extensive works of Messrs. Hawks and Crawshaw are also very firm in the determination to effect a reduction, which really looks serious, as they are not usually given to splitting hairs. We still hope that some compromise will be made. It is always a very disagreeable thing to reduce wages, but a little concession on both sides might in this case lead to an understanding, and thus prevent the ruinous consequences inseparable from a protracted strike. It is evident that the trade is in a bad state, and the prices received for most descriptions of iron very low comparatively; indeed, no other cause could have formed the masters into such a firm phalanx, and apparently determined to carry the reduction.

The commencement of operations at the Millom Brick Company's Works, at Holborn Hill, on the Whitehaven and Furness Junction Railway, has been celebrated by an inaugural dinner, at which Mr. John Matthews, the managing director, presided. The bed of clay which the company is formed to work is some acres in extent, and varies from 9 ft. to 16 ft. thick; it is immediately contiguous to the works, which are within 200 yards of the railway station. The clay is elevated to the crushing rollers, and passes through into a pug-mill, and thence through an aperture to the movable dies, whence it is received on belts and conveyed to the kiln. Driving at an ordinary speed the machine is capable of making some 2000 bricks per hour, and the great advantage gained is the avoidance of any delay in the preparation for burning. Instead of the very long process which hand labour entails in the preparation of the clay, at these works it occupies no longer time than is required to dig the material, send it through the rollers, and then through the machine, the whole occupying not more, we should think, than some two or three minutes; 15,000 bricks are produced daily, or 90,000 per week. The masonry and brickwork were executed by Messrs. Archer and Gallacher, of Cleator Moor, and the timber work by Mr. Jonathan Shepherd, Whitehaven. The engine was bought in Birmingham, and Messrs. Settle and Riggs, of Whitehaven, built the boiler and fitted it and the engine to the brick-making machine. The brick-making machine was built and fitted up by Mr. Ward, of Birmingham; it is one of Oates's patent, and the company have purchased the exclusive rights for Cumberland.

At a meeting of the Cleveland Ironmasters' Association, on Tuesday (Mr. I. Lowthian Bell in the chair), it having been agreed at a previous meeting that the notice for reduction of wages be adhered to, it was unanimously resolved:—That unless the men agree by Wednesday morning, the 26th inst., to work at the reduced rate, the furnaces be immediately prepared, as far as possible, for being stopped on the following Saturday.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

JULY 19.—The event which takes precedence in any reference to commercial matters in these districts is necessarily the failure of the Birmingham Banking Company. The main facts are now well known. The statements current are that very large advances have been made, all unwise, as locking up for an indefinite period the capital which should have been advanced only for short periods, whilst in some cases it is feared even ultimate recovery is very questionable. After the first shock was passed a very general desire that the bank should be re-suscitated was expressed, and the directors, backed by some of the shareholders, determined to propose this course, and called a meeting of shareholders, which has been held to-day, at which the Mayor (Mr. E. Yates) presided. The accounts, prepared by Messrs. Laundy and Harrison, showed an apparent surplus of 198,365*l*. All the resolutions necessary for carrying out the arrangements were unanimously agreed to, and if the shareholders generally come forward to take shares in the proposed new bank the evil effects of the failure will be reduced to the narrowest limits possible.

The Iron Trade is very dull. Pig-iron is not selling to much extent, but vendors are privately willing to accept lower rates than those quoted, and in some cases the proprietors of blast-furnaces are preparing to blow out a portion, so as to reduce their make. Almost all works are short of orders, and the event noticed above has tended to increase the distrustful caution with which dealings had previously been marked. Short time is becoming shorter, and, though in some cases orders have come to hand, as a rule the trade is very much depressed, and nothing but greater ease in the Money Market can effect an improvement. The increase in the duties in metallic products imported into the United States, which now appears imminent, will not tend to improve trade. The Hardware Trades are suffering seriously from the present protracted depression in the money market. The distribution of the products of the multifarious hardware manufactures of the Birmingham and South Staffordshire district is mainly carried on by factors and merchants, who give out orders to the thousands of small and great manufacturers, though the largest producers of particular articles employ travellers independently. These factors and merchants sell many articles at a comparatively small percentage of profit, and to pay 10 per cent. for the discount of bills received for many sorts of goods in great demand involves a loss. Hence the trade is reduced to narrow limits, and the makers are getting very short of orders in many cases.

The Wages Question in the Iron Trade now being fought out in the North and in South Wales is, of course, a matter of great interest here, but the policy seems at present to be to wait and let other districts do the fighting. It is, however, said that the Union, whose centre is Brierley Hill, is disposed to help the men in other districts, but they are themselves suffering a severe strain, owing to the few days a week they work.

By direction of the Admiralty, Mr. Welsh, one of the foremen of smiths at Chatham Dockyard, is to proceed to the Shropshire Ironworks, Shropshire, to superintend the testing of the iron manufactured for the iron-clad vessels under construction at the Royal Dockyards.

The Longton Bank failure does not look better for examining more thoroughly into. It is clear that the concern has long been going wrong. The accountant, Mr. Fernie, reported to a meeting of creditors, on Friday, rough estimate of 84,104*l*. of liabilities, and 39,753*l*. assets, showing 44,351*l*. but there is little, indeed no hope of securing that amount. The books, it seems, have been kept in the most careless manner possible, and the cash-book has not been balanced up "almost for years," said the accountant. An earnest desire to secure an economical winding-up, with as little legal contest as possible, was generally expressed at the meeting.

Two or three failures have been announced in South Staffordshire during the week, but not to any very serious amount. It is satisfactory to state that the Midland Banking Company, which has branches at Wolverhampton and Longton, and the South Staffordshire Banking Company, present very satisfactory reports for the past half-year.

The deed of assignment between Mr. Thomas Rose, ironmaster, of the Millfield and Bradley Ironworks, and his creditors has been registered. By virtue of the deed the works have been entered upon, and are now being carried on by Mr. John B. Dickinson, agent, of Wolverhampton, who was a creditor for the largest amount, and who claimed 15,000*l*.; and by Mr. J. Cotterill Harvey, coalmaster, of Longton, who is another creditor. The stock and effects of the works are to be valued by Mr. T. Spencer, of the Old Park Ironworks, near Shifnal, and the amount of his valuation Messrs. Dickinson and Harvey have undertaken to distribute, *pro rata*, amongst the creditors, in bills of three, six,

nine, and twelve months. The Millfield and the Bradley Works are now being carried on in the name of the Millfield Iron Company, and Mr. H. Dickinson has issued circulars to the customers of Mr. Rose, asking, in the name of the company and of himself, that their confidence may be extended to the new firm.

A sad accident occurred on Thursday, at the New Sinking Colliery, West Bromwich, belonging to Mr. W. H. Dawes. A young man and two boys were at work, and were to come up at dinner time. They did not, however, ascend, and a search of many hours resulted in the discovery of their dead bodies in some old workings, which were entirely unventilated, and which contained a large quantity of carbonic acid gas. It was clear that they had gone through, or rather had started to go through, these workings, in order to reach the mouth of the pit, and died on the way, the victims to their own recklessness and ignorance, or disregard of the danger attending entrance into unventilated openings. At the inquest on two of the bodies, Mr. Baker, the Government Inspector of Mines in the district, clearly brought out that there was no adequate protection against persons entering these old workings, as was required by the Mines Inspection Act. The deceased were actually found with candles in their hands, and though the fatal result arose from a gas which will no more maintain flame than human life, yet in such a place the slightest reflection would have suggested the danger of the existence of explosive gas, and the utter disregard of all precaution by the deceased was thus shown in a most striking manner. The jury, after a consultation, returned a verdict of "Accidental Death," but the coroner assured those responsible for the management of the mine that they had narrowly escaped from a verdict of manslaughter, and he intimated that they might have to answer for their neglect in not fencing off the old workings by other proceedings.

Yesterday (Wednesday) morning four men lost their lives at the Glebe Colliery, Fenton, in the Staffordshire Potteries. Messrs. Challinor are the proprietors of the pit, which was not fully sunk, but the downcast shaft had reached to a depth of 168 yards, and the upcast shaft 180 yards. The ground bailiff, Mr. Robert Kelsall, had on Tuesday night given orders that no naked candles were to be used, but two men, a sinker and a bricklayer, in total disregard of this precaution, were at work picking the bottom of the shaft with naked lights. About 3 o'clock on Wednesday morning there was a rush of gas through the scaffold, and a very violent explosion occurred. The men and the scaffold were blown up, and the men fell down to the bottom dead. The only other person in the mine was a man who was attending the ventilating furnace in the air-way, and the rush of air forced him into the downcast shaft, down which he fell, and his body was severed by the force with which he fell on a piece of iron at the bottom. The master sinker, Briggs, was just about to descend, when the gas exploded. The banksman, John Peake, was adjusting the wagon for him, and was knocked down and fell lifeless to the bottom. Briggs was knocked down, but did not fall down the shaft, and was found lying near the mouth of the shaft senseless, and injured, it is feared, severely. An enquiry will, of course, follow.

REPORT FROM MONMOUTH AND SOUTH WALES.

JULY 19.—The Iron Trade of South Wales continues in a lethargic state, and the slightly improved feeling, noticed last week, in consequence of the prospects of peace, has given way to one of distrust. Austria having notified her intention of not accepting the conditions proposed as a basis for an armistice, all parties have made up their minds for a complete stagnation of business for some time to come. The recent failure of the Birmingham Banking Company, and the critical position in which many establishments stand, all tend to create a feeling of much despondency. At only a few of the works are operations carried on with anything like regularity, and these are engaged principally on Russian, American, and Eastern contracts. But these cannot last for ever, and makers are seriously considering how they can keep their mills and furnaces partially going, as but few orders are coming in on foreign account, whilst literally no business is transacted on home account. Those who look to a reduction in the high rate of discount for a panacea of existing evils would soon find out, if such an event took place, the erroneousness of their opinion. The fact is the whole commercial system is disorganised, and anything like a healthy state of things will not take place until peace is restored, and thorough confidence once again exists in the trading world. True, a reduction in the price of money would, no doubt, relieve the pressure on trade to some extent, but by no means so much as is generally expected. In the present state of affairs several of the works have commenced paying off numbers of their men, and stocking is being proceeded with. This, under prevailing circumstances, cannot be carried on for any length of time, and unless orders come in more freely than they have of late, there is no alternative left but a general curtailment of operations throughout the district.

The progress of the American new Tariff Bill (which, by-the-by, is much modified as regards the import duties on iron) in the House of Representatives, does not appear to affect, to any great extent, the general tone of the markets of the States, as the advices received continue to speak hopefully of the future, and the prevailing opinion is that the bill will be vetoed. The warlike attitude assumed by Russia, who is about one of the best customers for Welsh iron, is attracting great attention, as should she enter into the war the trade of this district will be largely affected, for besides the present orders under execution, others are looked forward to to be given out. From Australia there are contracts in the market for railway iron, and it is only natural to suppose that South Wales will have a large portion of them. Taking the trade with the foreign markets altogether, there is no material change to record. The pig-iron market remains in a quiet state, and neither makers nor buyers seem at all anxious to enter into engagements. There is a slight improvement to note in the enquiry for tin-plates, and, considering surrounding circumstances, there is no cause for despondency. The large demand for Steam Coal, which has extended over so long a period, is likely to continue for some time to come. The requirements of the foreign markets, especially the continental, are as great as ever, whilst the enquiry on home account increases almost daily. So great has been the increase, that the quantity now sent by the Great Western Railway to the metropolitan markets is double what it was a few months back. In the home coal trade the demand is of a limited character, and the coasting trade is less active.

Messrs. Onions and Spittle's patent iron and steel has been tested by eminent men, and proved to be superior to the best samples of the metal heretofore produced in this country. The *Star of Gwent* says that a bar of rolled iron 1½ in. square stood a tensile test of 30 tons. Their tin bars and plates, which are also pronounced very excellent, are, we understand, made from ordinary pig, whereby a great saving is effected over those produced from the charcoal fire. The cost in charcoal, be it observed, is immense, and the loss of iron consequent on the manipulation of the ordinary iron, whereas by the patent process a very small quantity of charcoal is required, and not half the amount of iron lost in the working. The value of this new discovery can scarcely be over-rated, and when it is more generally known it cannot fail to cause a stir in the particular branch of trade which it affects. Doubtless this is not a time favourable to the formation of new companies, even when the enterprise is beyond all question as to safety; but with such a prospect as Messrs. Onions and Spittle are enabled to hold out, we believe there cannot be much difficulty in raising, by the application of the limited liability principle, sufficient capital to work a new process, in the commercial development of which there is involved a fortune to the capitalist.

Mr. Crawshaw Bailey, M.P., has resolved upon retiring from taking any active part in the management of the Beaufort and Nant-y-Glo Ironworks, and he will be succeeded by his nephew, Mr. Henry Bailey, son of the late Sir Joseph Bailey, Bart. Mr. Henry Bailey held the management of the works some years since, and his return to his old position has afforded general satisfaction throughout Monmouthshire, where his great abilities and knowledge of iron manufacture is well known and appreciated. It is understood that one of his first acts will be to lay out a large sum of money in putting both the establishments into a thoroughly efficient state, and there is no doubt he will introduce the latest improvements in the manufacture of iron, so that the Beaufort and Nant-y-Glo Works will again take foremost position among the extensive establishments of South Wales.

In the Journal of July 7 particulars were given of an inquest held on the body of a woman who met with her death by a fall of roof in the Nant-y-Glo Iron Mine. At the time Mr. Lionel Brough, the Government Inspector of Mines, pointed out the illegality of employing women in underground operations, and stated that he should communicate with the Home Office on the subject. Mr. Brough accordingly wrote, and has received instructions from the Secretary of State to take proceedings against the parties who had engaged the unfortunate woman's services. We understand that the necessary steps have been taken, and the case will be heard, at an early date, before the district magistrates.

Following the example set by the proprietors of the Blaenavon Works, the Governor and Company of Copper Mines intend giving the whole of the employees at the Cwmavon Works a day's furling. Arrangements have been made with the Great Western Railway Company to convey the large party, with their families, this day (Saturday), to Raglan Castle, where a *mondeir* picnic will be held amid the ivy-clad venerable ruins. The scenery in the neighbourhood is picturesque, and affords a pleasing contrast to the bold and mountainous scenery, amid which the hardy sons of toil labour from year to year. These pleasing gatherings are productive of the best results, as they tend to bring all classes together, and are the means of inducing among the men feelings of respect towards, and confidence in, their employers.

Situated above Caerleon, near Newport, and emptying itself into the Usk, is a stream called the Afon Llywd, along the banks of which, between Caerleon and Pontypool, are seven large iron, tin, and other works, in which the refuse of these ingredients and the works is allowed to flow into the Afon Llywd, and eventually finds its way into the Usk. It not only proves highly injurious to the salmon and other fish, but has gradually filled up the bed of the Usk. The evil which has long existed is now about to be grappled with, as the Harbour Commissioners have appointed a committee of investigation, who are empowered to take action in the matter. It has been shown that the evil can be profitably prevented, as at the Caerleon Tinworks the respected proprietor has for some time past adopted Fugbaley's patent for utilising the waste acid. The

patent answers its purpose admirably, and the proprietors of the other work would find it to their profit if they adopted it also.

THE BLAKELEY GUN—IMPORTANT CASE.—Mr. John Hughes, formerly of the Usk Side Ironworks, and now of Millwall, and Mr. Lancaster, the inventor of the once-celebrated Lancaster gun, were plaintiffs in an action in the Court of Queen's Bench against Mr. Blakeley for infringing their patent for giving lateral strength to wrought or cast iron guns. It appears that the principle of the invention has been used by Mr. Blakeley in the construction of his celebrated and effective guns; in fact, it is said that no really effective gun can be made without using or infringing the patent in question. Mr. Grove, Q.C., was about stating the principle of the invention, when Mr. Justice Stace asked him if the case was going to be tried; upon which the learned counsel said that Mr. Blakeley consented to a verdict for 350*l*. damages, and 200*l*. costs. The jury returned a verdict accordingly.

Meetings of Mining Companies.

WEST CARADON MINING COMPANY.

A general meeting of shareholders was held at the offices, St. Helen's-place, on Thursday.—Mr. NICHOLSON in the chair.

Mr. W. J. LIVINGTON (the secretary) read the notice convening the meeting, and the minutes of the last were approved.

A statement of accounts was submitted, which showed a debit balance of 2145*l*. 1s. 5d.

The report of the agents was read, as follows:—

July 17.—We have opened out on Vivian's lode since our last meeting, in the 170, west of cross-cut, about 9 fms.; the first 3 fms., being near the cross-course, produced from 2 to 2½ tons of ore per fm. The lode still continues its regular size—about 2 ft. wide; it is not, however, so productive as formerly, but the present end is now again looking better, being composed of mundle and peach, with good stones of copper ore. With these indications, we are strongly of opinion that we shall very shortly be in a position to be able to report a better lode, more especially as it is now leaving the influence of the cross-course. The same lode is driven east of cross-cut, in the same level (170), about 6 fathoms, and for the whole distance driven has been worth from 1 to 1½ tons of ore per fm.; this end is improving as we are advancing, and, no doubt, will lay open profitable ground. Allen's lode, in the 170, has been intersected about 6 fms. south of Vivian's lode, and opened on both east and west of cross-cut 5½ fathoms, and will average 1½ foot wide, composed principally of quartz and mundle, with good stones of copper ore. We are pleased to say that this lode presents a much better appearance than we have ever seen it below the 140. In order to see Downing's lode, which we fully referred to in our report for the last general meeting, we are compelled to suspend the driving on Allen's lode for the present, so that we may resume the driving of the cross-cut south in the 170. The ground in this cross-cut is moderately easy, and set to a full pace of men, at 4*l*. 10s. per fm. Seeing what this lode produced in the 125—from 2 to 3 tons per fathom—induces us to hasten on the cross-cut, as we believe that our chances of success are exceedingly good. The distance to drive is about 20 fms. The 128 is driven west of cross-cut, on Dope's lode, about 16 fms., and the 116 is driven east 21 fms.; the lode in each of these ends, has produced in places 1 ton of rich ore per fathom. We are now driving both ends on what we consider the south part of the lode, and shall continue to do so until we reach the little cross-course, the distance being, in the 128, about 14 fms., and about 8 fms. in the 116. After we have accomplished these points we shall at once commence to drive to get under the ore ground gone down in the 104, where the lode is worth, for 40 fathoms in length, from 1 to 2 tons of rich ore per fathom. The 104 is driven west of little cross-course about 48 fms. Within the last 8 fms., we have met with a hard bar of ground, mixed up with elvan, which has entirely split up the lode. We are now driving north, believing that the main part of the lode is standing in that direction, and there is not the least doubt in our minds that when this hard bar of ground is cut through the lode will again be found productive. We are putting up a rise in the back of this level (104), which is worth fully 15*l*. per fm. By adopting this mode of working we shall be enabled to prove the lode before the 80 fathom level, and have, therefore, suspended the driving of it for the present. In the 92 cross-cut, south of Allen's, we have not yet met with anything of importance. The ground is hard for progress. We are, however, pushing it on as fast as possible, as we see no reason to doubt but that we shall find the lode as productive as it is in the adjoining mine of South Caradon, where you are, probably, aware it has made enormous returns. We are now clearing out a cross-cut at our western boundary, which has not been seen for upwards of 20 years, with a view of seeing the promising lode which is now opening out at Caradon Consols, and which is within a short distance of our boundary. We shall soon see more of this, and will report to you fully thereon. The pitches in the back of the 92, and also in the back of the 70, on Menadue lode, are turning out pretty well, and had the standard continued good, our samplings would have increased, instead of the contrary. We sampled, on the 10th inst., 167 tons of copper ore, which is of a better quality than we have had for some months past, and which we hope will realise, even with the present low standard, between 850*l*. and 900*l*. In conclusion, we still entertain a good opinion of the 92 cross-cut south, and also of the bottom part of the mine, seeing the general improvement that has taken place in the lodes; and should Downing's lode be cut according to our expectations, will put us in a position to resume the sinking of Elliott's engine-shaft, and thus open up the mine at a deeper level.—WILLIAM JOHN, N. RICHARDS.

The CHAIRMAN moved that the report be received and adopted, and that the accounts be passed and allowed. Everyone, he thought, would agree with him that the report was a most satisfactory one, and that several important points were to come off at a comparatively early period. He might mention that from the debit balance there was to be deducted the sale of ore to be made on Thursday, and there was an item on account of doctor and club amounting to 500*l*.

The SECRETARY, replying to a question, stated that the sale of ore on Thursday would go against the costs charged in the present balance-sheet.

A SHAREHOLDER enquired if the committee had deemed it necessary to have the mine inspected by an agent other than their manager? He did not wish to have it inferred that he had not the most implicit confidence in the practical ability, judgment, and truthfulness of Captain Johns, for all he had heard concerning him went to substantiate the opinion that he was in every respect qualified for his position. Without making any invidious remarks, he could not help stating that he recollected, some two years since, that their former manager—Capt. Francis Pryor—stated at one meeting that the reserves in the mine were sufficient to ensure dividends for years to come, but that at the next meeting the accounts showed that the returns had very seriously fallen off; and, from that time to the present they had been, so to speak, going down hill.

Mr. MILFORD said that, probably, the course of the mine adopted by Captain Pryor was the cause of the present condition of the mine.

Mr. E. COOKE said that he had always heard Captain Johns spoken of in the highest terms, both as regards his ability and integrity, but it was not within his power to control the price of copper.

The report was ordered to be entered on the minutes, and the accounts were passed and allowed. A call of 1*l*. per share was made.

A resolution was passed that the next meeting be held in October.

The committee of management were re-elected, and the addition of Mr. MILFORD. A vote of thanks to the Chairman terminated the proceedings.

SILVER VEIN MINING COMPANY.

An ordinary general meeting of shareholders was held at the offices of the company, Bishopsgate-street, on Tuesday.

Lord KEANE in the chair.

Mr. WARD (the secretary) read the notice convening the meeting. A statement of accounts, made up from the commencement of the company to April, 1866, was submitted.

The report of the directors was read, as follows:—

Since the last meeting of shareholders the directors have endeavoured, with all the economy it was prudent to attempt, to push forward the operations of the mine, and had hoped ere this to have brought them to a successful issue. Various circumstances have, however, arisen to retard this desirable result; the old engine was found inadequate to drain the mine below the 50 fms. level, a new and more powerful one had to be purchased, new buildings for its reception to be erected, and a new and larger shaft sunk from the surface. Fifteen months have elapsed since this engine was purchased; it has been erected in a very efficient manner, the buildings are completed, of a most substantial character, and the new shaft has been sunk 65 fathoms in depth, an amount of work with which the directors are much pleased, believing, as they do, that it has, probably, never been excelled, and very rarely equalled, in the same space of time. These works have been executed under the supervision of Capt. James Secombe, to whose care the directors have considered it wise to entrust the management of the company's affairs in Cornwall, whilst at the same time they have retained the services of Capt. Burn, as heretofore, as resident agent on the mine. Upon the present position and prospects of the undertaking the report from Capt. James Secombe and E. Burn will be submitted to you, and it is impossible but that these should be considered as extremely satisfactory. It will be seen they are written in a tone of carefulness, and without any sign of exaggeration. To them the directors will only add their belief that the prospects of the mine, if the workings are provided for as they should be, and pushed on with vigour, all parties will be well repaid for the outlay made on them, and the patience so long exercised. To effect this, however, it is absolutely necessary that further capital should in some way or other be provided, and the directors have arranged that this meeting be made extraordinary, with the view of an effort to accomplish this. Some of the directors have already made considerable advances to the company, but for which the operations must have been stopped months since; they have gone in this direction to the utmost extent they are disposed to go, unless they are warmly seconded by a considerable number of the shareholders. This subject has occupied the most anxious consideration of the directors, and they suggest the expediency of the following arrangement:—1. That 10,000*l*. worth of additional capital be created in 10,000 shares of 1*l*. each, fully paid-up, which shares shall carry a preference dividend of 20 per cent. per annum, and that power be given the directors to issue the same, or any number of them, at par.—2. That power be given to the directors to borrow any sum or sums of money not exceeding 10,000*l*.—3. That a lease of the mine be granted to any responsible parties willing to find the necessary capital for carrying on the same, and to admit the proprietors of the existing company to a fair share in the profits of its working on the following conditions:—1. That the lessees take upon themselves all the existing tradesmen's debts of the mine, as well as all liabilities in connection with contracts made for timber, coals, ironwork, &c.—2. That the lessees pay all dead, or quit rents, royalties, &c., and over and above the sum of 50*l*. per annum to cover the expenses of registration of transfer of shares, &c., in this company until such time as they are in a position to pay a dividend to this company.—3. That the lessees be at liberty to retain out of the profits obtained by them a sum equal to 40 per cent. of the net profits, the remainder of the profits to be equally divided pro rata between the shareholders of the present company. That the lessees shall have power at any time after the expiration of 12 months from this date, and after the expenditure by them of

MINING AND FINANCE.

THE NORTH POOL MINE COMPANY.
COST BOOK SYSTEM V. "LIMITED LIABILITY ACT."
PROSPECTUS AND REPORTS.
OFFICES,—78, LOMBARD STREET, LONDON.

MINING AND FINANCE.

In answer to many enquiries from subscribers, we beg to state that the "Cost-book System" constitutes a complete co-partnership between the shareholders as regards the mine or adventure in which they are engaged; it also possesses several peculiar advantages over the Joint-Stock Act, and especially when contrasted with banking institutions, wherein liability exists for three years, even after transfer of shares. The salient points of the Cost-book System may be enumerated as follows:—Its adaptability to the requirements of mining enterprise, the facility with which it is applied to the settlement of disputes, the ease with which shareholders can escape from future responsibility, the precision with which they can determine their existing liabilities; again, the advantages which it affords to the successful development of promising undertakings, through the power possessed of raising from time to time sufficient money to defray costs incurred, or future expenditure required in prosecution. There ought to be no liabilities in mines worked upon the Cost-book System beyond those that accrue over a period of two to four months, so that, in fact, the co-partnership possesses practically every advantage supposed to be afforded by the limited liability of Companies Act—namely, the "Limited Liability Act"—combined with greater freedom of action in having the power to make calls irrespective of the amount of the shares. Under the "Limited Liability Act" the nominal amount of shares cannot be passed, or rather when three-fourths of the money has been expended the operations of the companies should be wound-up, either voluntarily or in bankruptcy, no matter how promising the enterprise, or near the approach of success; the sanguine hopes of shareholders are often doomed to end in disappointment in mines carried on upon the principle of limited liability, when certain success would be achieved under the Cost-book System, for in the prosecution of mines no authority, no matter how experienced or practical, can determine the actual capital required to open out the hidden wealth of lodes, or discover and render available profitable deposits of ore; therefore, the practice of holding meetings two-monthly or quarterly, and shareholders themselves auditing the accounts, discussing the merits of the adventure, and deciding upon the future conduct of affairs, is peculiarly adapted to and calculated to promote and foster the interests of miners. We may add, in illustration, that Carn Brea, after making immense returns many of the old-established companies, and the company erected machinery, pumped out the water, and succeeded upon an outlay of £15,000 in giving profits of £271,500, and possess at this moment a property of great commercial value. The mine adjoining, Tincroft, also abandoned as worthless, was regarded by many practical authorities as the more desirable speculation of the two, and the shares rose to an immense premium; the results prove, however, that a subscription of £54,000 was required, whilst dividends in the aggregate amount only to one-third of those of the Carn Brea, though present commercial value ranges far in excess. Again, Treavean, three times rich and three times abandoned, is again at work, but who can determine the capital required to unwater the old excavations, and sink shafts and cross-cut, so as to open out deeper sections of the various lodes? We must admit that the history of the past endures this adventure with unusual fascination, notwithstanding its frequent suspension, for the late company, upon an outlay of £3120, divided profits of £449,064. Buller was abandoned as worthless, yet a few hundreds discovered its wealth, and the mine a few years ago sold for £1050 per share, upon an outlay of £5 only. Dividends in the aggregate of 49s. per share have been declared. Other instances of brilliant and startling success can be adduced to prove that mining adventure requires at all times patience and personal investigation in order to secure success; and that the simple working of the "Cost-book System" is far preferable to the "Limited Liability Act." As regards the former, shareholders can act for themselves; whilst in respect to the latter the control is vested in directors, who usually are as ignorant of the science and practice of mining as the most uninitiated amongst the proprietary—hence arises the fact that all our prizes, with two exceptions, in Cornwall and Devon are mines conducted upon the Cost-book System, to the exclusion of the Limited Liability Act, which up to this moment has proved a total failure; and we agree with the late Mr. Commissioner Foulque in his observations on winding-up in bankruptcy the Union Discount Company (Limited)—namely, "This is another of those warnings which we have so frequently had. When you once get into a joint-stock company you never know when you will get out of it."

A plan of the district lying immediately north of the Carn Brea Hill is prepared, in which is situated the North Pool grant, a property of great prospective value, and surrounded which the prizes have been awarded to the industrious and persevering capitalists in opening out the mineral resources of that favoured locality for a period extending over the past century. The North Pool embraces an area of a mile in length from east to west, and is traversed by at least four well-defined and mineralised veins. A small section of one of the lodes only has yielded £250,000 worth of copper ore, wrought at profits exceeding £60,000, and with a subscribed capital of £4500. The present company consists of 6400 shares, upon which £455.8d. has been called up, and the unexpected balance is, in the opinion of many practical authorities, ample to cover all future outlay, so as to open out the several lodes, and to render the works permanently profitable, and whilst we introduce the undertaking to the notice of our friends and the public as a desirable investment at £5 per share, we feel no hesitation in prognosticating early and substantial success. It has ever been our practice to thoroughly investigate the inherent merits of mines which we introduce to the notice of our friends, and it is a singular instance recorded in favour of this property that all the various authorities consulted concur in regarding the grant as one of the first and most promising fields of virgin mineral wealth at present unworked throughout the length and breadth of Cornwall. We beg to refer the reader to the annexed report of Messrs. Joseph and W. C. Vivian, which cannot fail to stamp its merits as being of a peculiar and most interesting character.

Mines should be sought in good localities, the management scrutinised, the position and prospects of the works ascertained, and then, with the requisite funds forthcoming, no medium of investment presents the same chances of success, or pays so large a rate of interest. Speculative non-dividend shares afford greater range for the many of the old-established companies, and a judicious selection at the present time cannot fail in securing large profits upon ruling prices of shares. Many a fortune has and will again be made from this description of property upon comparatively small investments, for so immense as have been the returns and profits from the mineral wealth of Cornwall, and which have for centuries enriched mankind and rewarded enterprise and perseverance in prosecuting the mines of that county, it would appear that her resources are as yet equally prolific. There is no fear from recent discoveries that her stores for ages to come will exhibit any token of approaching exhaustion. New veins are constantly being discovered, and increased riches produced to reward the industrious, persevering, and enterprising miner, whose energies no stratum can resist or obstacles daunt in his slow yet certain progress to success. Undoubtedly, mining presents many hazardous positions, and risks become more attractive in proportion to their extent, but with the guiding lights of science at hand following out the various operations with spirit, perseverance and judicious economy, no pursuit presents more lucrative prospects, enriching its supporters, and giving employment and plenty to a deserving, intelligent, and working population. "Nil desperandum" should be the watchword, as "One and All" is unquestionably the motto of every true-bred successful miner.

The works at North Pool have now attained the depth at which profitable yield of minerals may fairly be anticipated; whilst the practical application of the capital in hand will, in all probability, efficiently develop the lodes, and avoid the necessity of a further appeal to the pockets of the shareholders.

We beg to observe, in respect to this mine, and also of mining pursuits generally, that it is a common observation with parties too indolent to observe and discriminate for the moment (and too ignorant of the phenomena of cause and effect in depositing mineral wealth in lodes), that there is no guide to discover where the ore is—in fact, that "where it is, there it is." It must be acknowledged, however, that great uncertainty exists as to the results of mining operations, which are at all times involved more or less in obscurity and doubt; hence the most prudent miners are at times at fault in prognosticating success; still they can state, with unerring certainty, under what circumstances profitable mines will not be found; hence the great advantages in consulting practical miners on embarking in new undertakings and in new districts. Much capital has been misapplied in exploring barren regions, and increased riches have proved that metallic ores are not to be found in sufficient quantities to pay the costs of extraction. Practical and scientific observation has certified that in the mineral kingdom order, system, and arrangement exist, as in every other department of nature; therefore, those who voluntarily direct public attention to particular mines and districts, as desirable over others for the profitable employment of capital, should be thoroughly acquainted with their nature, character, and respective peculiarities. The strata should not only be mineralised but crystallised, to form rich and remunerative deposits of ore. Lodes should dip at various angles, and run in various directions, so as to form intersections with each other; cross-courses, elvans, ironstone, and numerous other phenomena must also abound; and as these constituents all exist in combination in the North Pool sett, we feel no hesitation in prognosticating unusual success.

NORTH POOL MINE.

Resumé, June 25, 1866.—In accordance with your instructions, we have inspected this mine, and now beg to hand you the following report:—Ballarat shaft is drained by horizontal surface-rods from the engine, and has been sunk to the 40 fm. level under the adit. The 40 fm. level has been driven 7½ fms. east and 5¼ fms. west of the shaft, in which distance the lode has varied from 1½ ft. to 3 ft. In width, and has produced stones of yellow copper ore, accompanied by a conglutinated quartz. In the eastern end the lode is now in two parts or branches, which seem likely soon to form a junction in going forward, when an improvement will probably take place; this end is driven by four men, at £5 per fathom. In the western end the lode has recently much improved in character, being now about 2 ft. wide, and composed of a beautiful white quartz, yielding copper ore. The appearances here are such that we should not be surprised to hear of an early discovery of copper. The end is driven by six men at £6 per fathom. The junction of this lode with the middle lode is expected to be met with by driving the 40 fm. level about 40 fms. further west.—Middle Lode: This lode has been intersected by a cross-cut at the 24 fm. level, 60 fms. from surface, and opened on about 15 fms., in which some good copper ground was discovered; these operations were carried out by means of rods from the engine through the cross-cut. The lode has thus been tried to a depth of about 8½ fms. below; but as this was a very expensive way of working, and could leave no profit, it has been judiciously abandoned until reached by a deeper cross-cut. The copper ore already produced from this lode leads us to conclude that greater riches will follow in depth.—Engine-Shaft: This shaft has been sunk 50 fms., or 190 yards, from surface, where it is about 10 fms. north of the lode, which is dipping towards it at the rate of about 3 ft. per fathom. The lode has been intersected at this depth, and opened on 2½ fms. east, and the same distance west, its size averaging about 1 ft., and yielding yellow copper ore, in combination with blende and quartz. The two ends are being driven by eight men. The shaft has been sunk about 2 fms. deeper than the level, and although, as before stated, at a distance of about 10 fms. from the lode, it drains the water from it. The bottom of the shaft forms the reservoir or "fork" for the network, so that we could not see it; but the agent informed us that there is in the middle of it good stones of yellow copper ore, and that copper was met with in sinking several fathoms before reaching the present depth; this crevice or fissure

still continues, and seems to be the means of effecting the drainage of the lode, and the surrounding stratum. We look upon this feature as a favourable indication. According to the present underlay of the lode, it will be intersected by the shaft in about 20 fathoms. We should prefer pushing it down with all the rapidity possible, and with the force now employed in driving the level. It seems to us that the chances are better in depth than at the level named. We advise also that at Ballarat shaft the 40 fm. level be driven on, to see the effect of the junction of the two parts of the lode to which we have alluded, and should no improvement then take place, the operations should be confined to pushing westward with the greatest rapidity towards the junction with the middle lode; this is a point of great promise, although the indications now are of the most encouraging character. In conclusion, we think the chances are decidedly in favour of your meeting with a great prize in North Pool, if you pursue a judicious method of development. It is situated between the rich Tolgus group of mines on the east, and that of the Setons, Croftys, and Roskars on the west, being traversed by the lodes of those mines. It is also parallel with, and has the same cross-courses as, East Pool, Carn Brea Mines, which are only a short distance to the south. The properties of the rock, and the lodes in North Pool for bearing copper, have been already proved by the rich formation of ore discovered and taken away by the former company, and as the operations were abandoned at a depth at which nearly all the other mines in the same district began to yield their greatest riches, leaving at the same time every other part of the sett except that in which the ore was met with unexplored, there seems to us every reason for believing that greater profits may be realised from this mine in future than those which have been already given.

Richard Tredinnick, Esq.

JOSEPH VIVIAN.

WILLIAM C. VIVIAN.

THE NORTH POOL MINE COMPANY.

GENTLEMEN,—I beg to apply for shares in the North Pool Mine Company, at £5 per share, and enclose you herewith the sum of £5, being £1 per share in part-payment thereof, and I further agree to pay you the remaining £4 per share upon receiving a notification from you that my application is accepted.

Name.....
Address.....
Description.....
Dated, July 1, 1866,
Messrs. Tredinnick and Co., 78, Lombard-street, London.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN RE WEST CONDRURRO MINE.
Robinson and Others, dated the 25th day of April last, at the Registrar's Office, at Truro, on Wednesday, the 1st day of August next, at One o'clock in the afternoon precisely.

125 (4790th) PARTS or SHARES of the defendant Henry Robinson,
10 (4790th) PARTS or SHARES of the defendant Thomas Holman,
25 (4790th) PARTS or SHARES of the defendant Archibald Herron,
75 (4790th) PARTS or SHARES of the defendant Thomas Crump; and
29 (4790th) PARTS or SHARES of the defendant Thomas E. Rees
Of and in the said Mine. JOHN GILBERT CHILCOTT, Truro
(Agent for John Rule Daniell, Camborne, Plaintiff's Solicitor).
Dated Registrar's Office, Truro, July 16, 1866.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN THE MATTER OF THE COMPANIES ACT, 1862, and of the GODOLPHIN HILL MINING COMPANY.—By an order made by His Honour the Vice-Warden of the Stannaries in the above matter, dated the 14th day of July inst., on the petition of William John Rawlings, of Hayle, within the said Stannaries, a creditor of the said company, it was ordered that the GODOLPHIN HILL MINING COMPANY should be wound-up by this Court, under the provisions of the Companies Act, 1862.
HODGE, HOCKIN, AND MARRACK, Truro
(Solicitors for the Petitioner).
Dated Truro, July 17, 1866.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN THE MATTER OF THE COMPANIES ACT, 1862, and of the WENDRON CONSOLS MINING COMPANY.—By an order made by His Honour the Vice-Warden of the Stannaries in the above matter, dated the 14th day of July inst., on the petition of Frederick Hill, of Helston, within the said Stannaries, a shareholder and also the manager of the said company, it was ordered that the WENDRON CONSOLS MINING COMPANY should be WOUND-UP by this Court, under the provisions of the Companies Act, 1862.
HODGE, HOCKIN, AND MARRACK, Solicitors, Truro.
Dated Truro, 17th July, 1866.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN THE MATTER OF THE COMPANIES ACT, 1862, and of the WHEAL MARY GREAT CONSOLS MINING COMPANY.—By an order made by His Honour the Vice-Warden of the Stannaries in the above matter, dated the 14th day of July inst., on the petition of William Bradley, of Soho Brewery, Sheffield, in the county of York, a shareholder of the said company, it was ordered that the WHEAL MARY GREAT CONSOLS MINING COMPANY should be WOUND-UP by this Court, under the provisions of the Companies Act, 1862.
BOLTON AND GYLLS HILL
(Solicitors for the Petitioner), 4, Elm-court, Temple, London.
HODGE, HOCKIN, AND MARRACK, Truro
(Agents of the said Solicitors).
Dated Truro, 17th July, 1866.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN THE MATTER OF THE COMPANIES ACT, 1862, and of the RETANNA HILL MINING COMPANY.—By an order made by His Honour the Vice-Warden of the Stannaries in the above matter, dated the 14th day of July inst., on the petition of Michael Henry Williams, of Gweek, within the said Stannaries of Cornwall, carrying on business there under the style or name of the "Gweek Company," a creditor and also a contributory of the above-named mining company, it was ordered that the said RETANNA HILL MINING COMPANY should be WOUND-UP by this Court, under the provisions of the Companies Act, 1862.
JOSEPH ROBERTS, Truro
(Solicitor of the Petitioner).
Dated 19th July, 1866.

In Chancery.

VICE-CHANCELLOR WOOD AT CHAMBERS.

IN THE MATTER OF THE JOINT-STOCK COMPANIES WINDING-UP ACTS, 1848 and 1849, and of the JOINT-STOCK COMPANIES WINDING-UP AMENDMENT ACT, 1857, and of the SOUTH LADY BERTHA COPPER MINING COMPANY.—By direction of the Vice-Chancellor Sir W. Page Wood, the Judge of the High Court of Chancery, to whose Court the winding-up of this company is attached, notice is hereby given that the said Judge will, on Tuesday, the 31st day of July, 1866, at Three o'clock in the afternoon, at his chambers, No. 11, New-square, Lincoln's Inn, in the county of Middlesex, PROCEED TO MAKE A CALL on the several persons who are settled on the list of contributories of the said company, and that the said Judge purposes that such call shall be for ONE POUND TEN SHILLINGS PER SHARE. All persons interested are entitled to attend at such day, hour, and place, to offer objections to such call.
HY. LEMAN, Chief Clerk.
R. P. HARDING, 3, Bank-buildings, and 5, Serle-street, Lincoln's Inn, Official Manager.
W. J. BARRETT, 8, Bell-yard, Doctor's Commons, Solicitor.
Dated this 18th day of July, 1866.

In Chancery.

THE VICE-CHANCELLOR WOOD AT CHAMBERS.

IN THE MATTER OF THE JOINT-STOCK COMPANIES WINDING-UP ACTS, 1848 and 1849, and of the JOINT-STOCK COMPANIES WINDING-UP AMENDMENT ACT, 1857, and of the BULLER AND BERTHA MINE COMPANY.—By direction of the Vice-Chancellor, Sir William Page Wood, the Judge of the High Court of Chancery, to whose Court the winding-up of this company is attached, notice is hereby given that the said Judge will, on Monday, the 30th day of July, 1866, at Three o'clock in the afternoon, at his chambers, No. 11, New-square, Lincoln's Inn, in the county of Middlesex, PROCEED TO MAKE A CALL on the several persons who are settled on the list of contributories of the said company, and that the said Judge purposes that such call shall be for ONE POUND PER SHARE. All persons interested are entitled to attend at such day, hour, and place, to offer objections to such call.
EDWARD WEATHERALL, Chief Clerk.
EDMUND PULLIN, 2, Bank-buildings, City, Official Manager.
OLIVER PEACHEY, AND CO., 8, Frederick-place, Old Jewry, Solicitors.
Dated this 10th day of July, 1866.

VALUABLE FREEHOLD ESTATE, WITH COPPER MINE, MACHINERY, AND MATERIALS.

MESSRS. SKARDON AND SONS WILL SELL, BY AUCTION, at the Bedford Hotel, Tavistock, on Tuesday, the 7th day of August, 1866, at Two o'clock in the afternoon, the freehold of the above-named VERY VALUABLE FREEHOLD ESTATE, known as the CHARTON ESTATE, situate near TAVISTOCK, in the county of DEVON, consisting of a capital FARM of about 67 acres of well-cultivated land, and excellent homestead and farming appointments, now in the occupation of Mr. Gill; also, that VERY PROMISING COPPER MINE thereon, partially developed by the Great Devon and Bedford (Colliery) Copper Mining Company (Limited), now in course of voluntarily winding-up, with all its mineral rights, and the engine-house, offices, powder-house, carpenter's and smith's workshops, tools, plant, machinery, and materials thereto belonging, comprising ONE 20 in. diameter cylinder double-acting STEAM-ENGINE, with fly-wheel 11 tons, 10 ton BOILER, sweep rods and cranks attached, complete. The whole will be offered in One Lot. The mine is kept dry, and has been worked up to the present time. Possession will be given immediately after the sale. The entire property being freehold, and the surface and minerals sold, there will be no royalties payable. The whole can be inspected by applying to the agent, Capt. WILLIAM SKEWES, Tavistock; or to Capt. JAMES RICHARDS, on the mine, who are instructed to afford every information respecting the state and prospects of the workings and lodes; and further particulars and handbills can be obtained of the auctioneers, Plymouth; J. H. SKYRME, Esq., solicitor, Exeter; or of the liquidator of the company, Mr. THOMAS BLAKE, public accountant, Bank Office, Exeter.

STAFFORDSHIRE.

WHITE BARN COLLIERY, NEAR NEWCASTLE-UNDER-LYME.
HIGHLY IMPORTANT SALE OF STEAM ENGINES, PUMP TREES AND RODS, PIT FRAMES, PULLEYS, AND WAGONS: 100 TONS OF METAL.
MR. HIGGINBOTTOM is instructed by the proprietors, Messrs. Lawton, to SELL, BY PUBLIC AUCTION, upon the premises, the WHITE BARN IRONSTONE WORKS AND COLLIERY, near Newcastle-under-Lyme (in consequence of the exhaustion of the mine), on Thursday, July 26, 1866, ONE 40-horse vertical HIGH-PRESSURE ENGINE, by Thornycroft and Ward, of Burton-on-Trent.

THREE wrought-iron BOILERS, steam and feed pipes, doors and bars.
ONE 20-horse power horizontal STEAM ENGINE.
TWO wrought-iron BOILERS, steam and feed pipes, doors and bars.
ONE 22-horse power condensing BEAM ENGINE.
ONE wrought-iron BOILER, steam and feed pipes, doors and bars.
Pit frames; pulley wheels and wagons; driving gear; drums, pedestals, and plates; 160 yards of 13 in. pump trees; bucket and clack door-pieces; one 12-in. plunger, complete; 30 yards of 7½ inch pump trees, with bucket and clack door-pieces; 250 feet lineal pit line rods, 9 inches by 9 inches; cast-iron rollers and frames; 200 yards 4 inch flat-chains; wrought-iron wagons, tubs, pit cages, and chains; two winding crabs; capstan, rope, pit frame, and gearing; 100 tons of metal, comprising old and new rails, pipes, scrap, &c.; one portable smithy, bellows, anvils, vices, and tools; five horses; carts, wagons, &c.; with all the usual paraphernalia found upon a well-appointed colliery.

Catalogues may be had, seven days prior to the sale, on application at the offices of Mr. Higginbottom, 3, Foley-place, London.
The engines may be viewed at any time by applying to Mr. GEORGE LAWTON, at the colliery. The Silverdale branch of the North Staffordshire Railway communicates with the colliery.
Refreshments will be provided at the colliery office at Eleven, and the sale commence at Twelve o'clock.—Foley-place, London, July 16, 1866.

VALUABLE COAL FIELD IN THE WEST OF FIFE, TO LET.

TO BE EXPOSED TO LET, BY PUBLIC ROUP, within the town-house of Dunfermline, on Tuesday, the 7th day of August next, at Twelve o'clock noon, on a lease, for twenty-one years, from and after Candlemas next, 1867, or such longer period as may be agreed upon, the WHOLE SEAMS OF COAL, SHALE, IRONSTONE, and FIRE-CLAY in and under portion of the lands belonging to the Burgh of Dunfermline, extending to 120 imperial acres, or thereby, and lying about two miles north-east of the burgh.
Most of the coal seams which have rendered the collieries of Wellwood, Townhill, and Halbeath so famous are known to be in these lands. There is every facility for conveying the minerals now to be let, by railway or otherwise, in all directions.

Further information may be had, and the conditions of let seen, on application to DAVID LINDALE, Esq., mining engineer, Edinburgh; or to JOHN LINDALE, Esq., town clerk of Dunfermline.
Dunfermline, July 14, 1866.

VALUABLE TIN MINE, LEASES, MACHINERY, AND PLANT.

TO BE SOLD, BY PRIVATE TREATY, the MINE, MACHINERY, and MATERIALS in and belonging to the GYLLS WHEAL FLORENCE MINE, situate in the parish of Perranuthnoe, and county of Cornwall, comprising a 20 in. cylinder ROTARY STEAM ENGINE, with an 8 ton BOILER, large fly-wheel, fitted with 12 heads of stamps complete; also connections for pumping, &c., and 40 fms. of 9 and 10 in. pitwork, 100 fms. horizontal connecting rods, shaft and balance-holms, capstan and shears, capstan rope 25 cwt., launders and stands, 2 horse whims, dressing-floors and apparatus; smiths' bellows, anvils, and tools; miners' tools, steel, new and old timber.—The whole to be inspected on application to Capt. EDWARD ROBERTS, on the mine; and prices and terms obtainable at the offices of the company, St. Michael's House, St. Michael's-alley, Cornhill, London.

JEHU HITCHINS, Sec.
June 29, 1866.

TO IRON AND STEEL MASTERS.

FOR SALE, BY PRIVATE CONTRACT, EXTENSIVE FREEHOLD IRON AND SILVER-LEAD MINES AND WORKS IN CENTRAL SWEDEN, within easy and constant communication with Hull and London, by rail and steamers. The mines have recently been surveyed by an English civil engineer. The surface land comprises upwards of 22,000 acres of forest and 4000 acres of arable and pasture. The works are in full and successful operation, and have produced, with the profits of the surface lands, upwards of £7000 a year for many years past, and with increased capital and improved machinery are capable of producing many times that revenue yearly. The iron mines are particularly suitable for the production of Bessemer steel, and the quantity of ore is reported to be practically inexhaustible.—For full particulars, application, personally or by letter, to be made to JOHN FINCH, Esq., solicitor, 22, Throgmorton-street, London, E.C.

CHEAP LAND FOR WORKS.—TO BE SOLD, on the River Dee, about TWENTY-NINE ACRES OF FREEHOLD MARSH LAND, admirably suited for the erection of works or manufactories of any kind, having a frontage of about 700 yards to the river, within a few yards of an excellent turnpike-road, to which it has access, and another acre of land will afford the facility of a siding to the Chester and Holyhead Railway section of the London and North-Western Railway line, close to a station. It is contiguous to the coal-fields of Flintshire and Denbighshire, water may be obtained on the spot, and, in fact, it possesses every possible advantage for the purpose intended.—For further particulars, apply to Mr. ISMAEL JONES, Trearney-square, Flint.

TO MINERS AND OTHERS.

TO BE LET, the IRON ORE in and under an extensive tract of land situate in the parish of HENNOCK, near the town of CHUDLEIGH, in the county of DEVON, and adjoining the Teign Valley Railway, now in course of construction, the communication with which will be very easy, and by means of which the produce may be exported by sea as well as by land. The above affords a most desirable opportunity for persons desirous of engaging in a mining adventure, and it is believed may be worked very profitably and advantageously, large deposits of spathic iron ore and peroxide of iron having been discovered, which have been analysed and reported on very favourably. For particulars, apply to Capt. NICHOLS, South Exmouth Mine, Henock, who will point out the iron field; or to Messrs. KITSON, solicitors, Torquay.

TO BE LET, the EXTENSIVE and VALUABLE

COLLIERIES now working by the owners, viz., the CLIFTON COLLIERY, situated in the immediate vicinity of Manchester, and extending under 500 statute acres or thereabouts, containing all the most valuable mines of the Lancashire coal field, for which there is a very great demand.

THE KERSLEY COLLIERY, adjoining the foregoing, and containing mines of the same series, extending under 350 statute acres or thereabouts.
THE DENTON COLLIERY, situate between the towns of Ashton-under-Lyme and Stockport, in the centre of a large and increasing manufacturing district. This colliery is worked by the Clifton Colliery, and the upper mines of the Lancashire coal field, and also contains the Middle and Lower Seams, including the celebrated Black and Peacock Beds. The extent of this mineral property is 500 statute acres or thereabouts.

The whole of the valuable steam-engines and other plant at these collieries may be taken by the lessees at a valuation, or be included in the leases upon sufficient guarantees being given for their due preservation.

For particulars, and permission to view, apply to JNO. FLETCHER, Esq., Clifton House, near Manchester; and for terms, and to treat, apply to Messrs. HELPS, PARKER, and BIRCH, solicitors, Chester.

LEAD MINE, NEAR CARSPHAIN, STEWARTRY OF KIRKCUDBRIGHT.

TO BE LET, for such a number of years as may be agreed upon, the WOODHEAD LEAD MINE, on the CRAIGGILLAN ESTATE, situated in the parish of Carsphairn and Stewartry of Kirkcudbright.
This mine was opened by the late proprietor in 1838, and since then has yielded upwards of 6500 tons of lead of the finest quality. The plant, machinery, &c., can be had at a valuation.

Mr. CHARLES WILSON, manager at the mines, will show the underground workings, as also the plans and sections; and for further particulars application may be made to ALEXANDER SMITH, Esq., W.S., 18, York-place, Edinburgh; or to Mr. KENNEDY SMITH, Berthel Mains, Dalmeindale, Ayrshire.
Berthel, June 25, 1866.

PORTABLE STEAM-ENGINES (SECOND-HAND) FOR SALE.

—TWO 20-horse, by ROBEY, of Lincoln; TWO 10-horse, by CLAYTON, SHUTTLEWORTH, and Co., and a 7-horse; also a 10-horse RETURN FLUE ENGINE; and also FOUR OTHER ENGINES, out of repair, which will be disposed of at a moderate price.—For particulars, apply to MEAD and Co., No. 2, King's Bench-walk, Temple, E.C.

STEAM ENGINES FOR SALE.—60-inch PUMPING ENGINE,

equal beam, 10 ft. stroke, with TWO 10-ton BOILERS; 36-in. CYLINDER SINGLE-ACTING ROTARY ENGINE, 14 ton fly-wheel, with 9 ton BOILER; 18-inch CYLINDER DOUBLE-ACTING ROTARY ENGINE, with drawing gear, whim cage, and 7-ton BOILER, the whole in good condition, to be seen at Kelly Bray Mine, Callington, Cornwall.—For further particulars and prices, apply to Mr. EDWARD KING, 224, Austinfrills, London.

Now ready, price 5s., by post 5s. 4d.,

THE MINES OF CORNWALL AND DEVON:

STATISTICS AND OBSERVATIONS, for 1865.

By THOMAS SPARGO, Mining Engineer, Stock and Sharebroker,

Gresham House, Old Broad-street, London, E.C.

RAILWAYS AND MINES.—Capitalists who seek safe and

profitable investments, free from risk, should act only upon the soundest information. The market prices for the day are for the most part governed by the immediate supply and demand, and the operations of speculators, without reference to the bona fide merits of the property. Railways depend upon the traffic, expenditure, and capital accounts, the probabilities of alliance or competition with neighbouring companies, the creation of new shares, the state of the Money Market as affecting the renewal of debentures, and other considerations founded on data to which those only can have access who give special attention to the subject. Mines afford a wider range of profit than any other public securities. The best are free from debt, have large reserves, and pay dividends monthly varying from £10 to £25 per cent. per annum. Instances frequently occur of young mines rising in value 400 or 500 per cent. But this class of security, more than any other, should be purchased only upon the most reliable information. The undersigned devote special attention to Railways and Mines, afford every information to capitalists, and effect purchases and sales upon the best possible terms. Thirty years' experience in mining pursuits justifies us in offering our advice to the uninitiated in selecting mines for investment.

MESSRS. TREDINNICK AND CO.,

No. 78, LOMBARD STREET, LONDON, E.C.

MR. CHARLES BAWDEN, INSPECTING MINE AGENT,

ST. DAY CORNWALL, OFFERS HIS SERVICES TO CAPITALISTS

SEEKING TO INVEST in bona fide MINES.

NOTICE.—Notice is hereby given, that the COAL BUSINESS CARRIED ON for many years by Mr. J. DUNSTAN will, on and after the 1st March next, be CONTINUED under the FIRM of J. DUNSTAN AND CO. To the above will be ADDED the BUSINESS of GENERAL MERCHANTS, AUCTIONEERS, MINE BROKERS, and SHAREDEALERS, MINE PURSERS, COMMISSION AGENTS, ACCOUNTANTS, &c. J. DUNSTAN and Co. hope, by strict application to all matters of business entrusted to their care, to merit a liberal share of public patronage. Truro, January 24, 1866.

PATENT FLEXIBLE TUBING,
AND BRATTLE CLOTH FOR MINES,
MANUFACTURED BY
ELLIS LEVER,
PATENTEE,
WEST GORTON WORKS, MANCHESTER.

VULCANISED INDIA-RUBBER,
FOR ENGINEERS AND MECHANICAL PURPOSES.
VALVES for Marine and Land Engines' Steam Packing, sheet or roll.
DELIVERY AND SUCTION HOSE—for Brewers, Distillers, Fire-engines, Gardens, &c.
MACHINE BANDS—for all descriptions of Machinery.
GAS TUBING—with or without wire.
GAUGE GLASS RINGS; WASHERS.
Price Lists free on application.
SOUTHWARK INDIA-RUBBER COMPANY (LIMITED),
67, GRANGE ROAD, BIRMINGHAM, LONDON, S.E.

TAVISTOCK IRONWORKS AND STEEL ORDNANCE COMPANY (LIMITED).
(LATE GILL AND CO.)
ENGINEERS, IRON AND BRASS FOUNDERS,
MANUFACTURERS OF
STEAM ENGINES, BOILERS, AND MACHINERY OF ALL KINDS.
CHAINS, SHOVELS, EDGE TOOLS, AND EVERY DESCRIPTION OF CAST AND FORGED IRON FOR MINING, MANUFACTURING, RAILWAY, OR AGRICULTURAL PURPOSES.
Machinery sent to all parts of the world.
Foreign mining companies supplied on liberal terms.

RAILWAY CARRIAGE COMPANY (LIMITED)
ESTABLISHED 1847.
OLDBURY WORKS, NEAR BIRMINGHAM.
MANUFACTURERS OF RAILWAY CARRIAGES AND WAGONS, AND EVERY DESCRIPTION OF IRONWORK.
Passenger carriages and wagons built, either for cash or for payment over a period of years.
RAILWAY WAGONS FOR HIRE.
CHIEF OFFICES.—OLDBURY WORKS, NEAR BIRMINGHAM.
LONDON OFFICES.—6, STOREY'S GATE, GREAT GEORGE STREET, WESTMINSTER.

RAILWAY WAGON WORKS, BARNLEY.
—CRAIK BROTHERS are PREPARED TO SUPPLY COAL AND COKE WAGONS OF EVERY DESCRIPTION, either for cash, or by deferred payments through wagon leasing companies.

THE METROPOLITAN RAILWAY CARRIAGE AND WAGON COMPANY (LIMITED).
SALTLEY WORKS (BIRMINGHAM).
Successors to Messrs. JOSEPH WRIGHT AND SONS.
MANUFACTURERS OF RAILWAY CARRIAGES, WAGONS, AND RAILWAY IRONWORK of every description.
RAILWAY CARRIAGES AND WAGONS built for CASH, or upon DEFERRED PAYMENTS EXTENDING over a period of from THREE to TEN YEARS.
A large number of COAL, IRONSTONE, BALLAST, and other WAGONS to be LET ON HIRE.
MANUFACTORY AND CHIEF OFFICES.—SALTLEY WORKS, BIRMINGHAM.
LONDON OFFICES.—No. 8, ADAM STREET, ADELPHI, W.C.

THE BEVERLEY IRON AND WAGON COMPANY (LIMITED).
MANUFACTURERS OF RAILWAY CARRIAGES AND WAGONS, WROUGHT AND CAST IRON CARRIAGE AND WAGON WHEELS, AXLES, HAMMERED IRON, AND HEAVY SMITH'S WORK FOR ENGINEERS, &c. BRASS AND IRON FOUNDRY, MAKERS OF PORTABLE FARM MACHINES, TABLES, CROSSINGS, SWITCHES, &c. AGRICULTURAL MACHINISTS.
MANUFACTURERS OF FIELD, ROAD, AND BARN IMPLEMENTS, PATENT LOBBY, CART, AND CARRIAGE WHEELS, WITH WOOD OR IRON NAVES.
REAPING MACHINES, CLOD CRUSHERS, CORN MILLS, &c. SAW MILL PROPRIETORS. GENERAL TIMBER CONVERTERS for home and foreign RAILWAYS, STATIONS, BARRACKS, EXHIBITIONS, &c.
IRONWORKS BEVERLEY, YORKSHIRE.
JAMES DEWHIRST, Sec.

THE BIRMINGHAM WAGON COMPANY (LIMITED)
MANUFACTURE RAILWAY WAGONS OF EVERY DESCRIPTION, for HIRE AND SALE, by immediate or deferred payments. They have also wagons for hire capable of carrying 6, 8, and 10 tons, part of which are constructed specially for shipping purposes. Wagons in working order maintained by contract.
EDMUND FOWLER, Sec.
WAGON WORKS.—SMETHWICK, BIRMINGHAM.
*Loans received on Debenture; particulars on application.
London Agent.—Mr. E. B. SAVILE, 67, Victoria-street, Westminster, S.W.

STAFFORDSHIRE WHEEL AND AXLE COMPANY (LIMITED).
MANUFACTURERS OF RAILWAY CARRIAGE, WAGON, AND CONTRACTORS' WHEELS AND AXLES, and other IRONWORK, used in the CONSTRUCTION OF RAILWAY ROLLING STOCK.
CHIEF OFFICES,
3 and 4, EXCHANGE BUILDINGS, BIRMINGHAM.

GALLOWAY'S PATENT CONE TUBES FOR STEAM BOILERS.—The introduction of these vertical taper tubes into the ordinary flued boilers PROMOTES the NECESSARY CIRCULATION OF WATER, and thus INCREASES THEIR STRENGTH AND DURABILITY.
Their adoption not only adds to the steam-producing power of the flues, but renders the practice of hooping with angle or tee iron rings quite unnecessary. The tubes have now been in use upwards of 14 years, and above 22,000 are in work in various parts of the country, with the best results.
They can be easily fixed in existing boilers (owing to their taper form) by any boiler maker, but can only be obtained from the patentees, W. and J. GALLOWAY and SONS, Engineers and Boiler Makers, Manchester.

COAL CUTTING MACHINERY.—The WEST ARDSLEY COMPANY having, by recently patented improvements, perfected their coal cutting machinery, worked by compressed air, are NOW READY TO MAKE CONTRACTS for the CONSTRUCTION AND USE of their MACHINES.
The results of twelve months' experience in the working of these machines, by the West Ardsley Company, have proved most satisfactory, their use being found to CHEAPEN the COST and IMPROVE the average SIZE of the COAL, to LIGHTEN the LABOUR, and also to MODIFY the SANITARY CONDITION of the MINE.
All communications to be made to Messrs. FIRTH, DONNISTHORPE, and BOWER, No. 8, Britannia-street, Leeds.

NOTICE.—The WEST ARDSLEY COMPANY, having reason to believe that their patents are being infringed upon, hereby give notice that they will TAKE LEGAL PROCEEDINGS AGAINST ALL PARTIES who may MAKE FOR SALE, or USE ANY MACHINERY in the construction of which any such INFRINGEMENT is MADE.

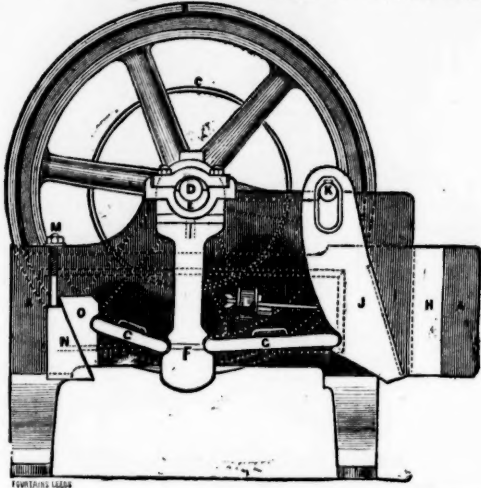
GUN COTTON FOR BLASTING.—The extended use of this material has enabled the manufacturers to issue a new List, showing a LARGE REDUCTION IN PRICE; and they now beg to call the attention of those interested in MINING and BLASTING OPERATIONS to the GREAT SAVING IN TIME and COST which may be effected by the introduction of gun-cotton.
Directions for use and full particulars obtained upon application to
THOMAS PRENTICE AND CO.,
173, FENCHURCH STREET, LONDON; or
GUN COTTON WORKS, STOWMARKET.

Swan Rope Works.

GARNOCK, BIBBY, AND CO.,
CHAPEL STREET, LIVERPOOL.
MANUFACTURERS OF FLAT AND ROUND HEMP AND IRON AND STEEL WIRE ROPES FOR MINING, RAILWAY, AND SHIPPING PURPOSES.
MANILLA ROPE OF SUPERIOR QUALITY, FIFTY PER CENT. STRONGER AND THIRTY PER CENT. CHEAPER than Russian hemp rope.
WIRE ROPE OF FIRST QUALITY, and the HIGHEST STANDARD of STRENGTH.

SALOM'S NEW OPERA and FIELD GLASS, and the "RECONNOITERER" GLASS, price 10s. 10d., sent free.—This TOURIST'S FAVOURITE, through extraordinary division of labour, distinctly shows small windows 10 miles off, landscapes at 30 miles, Jupiter's moons, &c.—The MARQUIS OF CARMARTHEN: "The reconnoiterer is very good."—The EARL OF BREADALBANE: "I find it all you say, and wonderfully powerful for so very small a glass."—EARL OF CAITHNESS: "It is a beautiful glass."—Rev. Lord SCARSDALE "approves of it."—Lord GIFFORD, of Ampney: "Most useful."—Lord GARVAUGH: "Remarkably good."—Sir DIGNY CAYLEY, of Brompton: "It gives me complete satisfaction, and is wonderfully good."—Sir W. H. FIELDEN: "I do not think it can be surpassed; it gives great satisfaction."—Capt. BENDEY, Royal Small Arms Factory, Enfield: "found it effective at 1600 yards range."—F. H. FAWKES, of Farnley Hall, Esq.: "I never before, although I have tried many, met a glass combining so much power for its size with so much clearness."—The Field: "We have carefully tried it at 800-yard rifle range, and found it fully equal to any of those present, although they had cost more than four times its price."—Notes and Queries: "What intending tourist will now start without such an indispensable companion?" The celebrated HYTHE GLASS shows bullet-marks at 1200 yards, and men at 2½ miles; price, 5s. 6d. All the above, respectively bearing the registered trade-marks, "Salom," "Reconnoiterer," and "Hythe," are only to be had direct from SALOM and Co., 98, Princess-street, Edinburgh, and 137, Regent-street, London, W.
A few hours will carry a glass to almost the remotest town in the United Kingdom. No agents of any kind anywhere.

IMMENSE SAVING OF LABOUR.
TO MINERS, IRONMASTERS, MANUFACTURING CHEMISTS, RAILWAY COMPANIES, EMERY AND FLINT GRINDERS, MCADAM ROAD MAKERS, &c., &c.
BLAKE'S PATENT STONE BREAKER,
OR ORE CRUSHING MACHINE,
FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND MINERALS OF EVERY KIND.
It is rapidly making its way to all parts of the globe, being now in profitable use in California, Washoe, Lake Superior, Australia, Cuba, Chili, Brazil, and throughout the United States and England. Read extracts of testimonials:



The Parys Mines Company, Parys Mines, near Bangor, June 6.—We have had one of your stone breakers in use during the last twelve months, and Captain Morcom reports most favourably as to its capabilities of crushing the materials to the required size, and its great economy in doing away with manual labour.
For the Parys Mining Company, JAMES WILLIAMS.

H. R. Marsden, Esq.
Eaton Emery Works, Manchester.—We have used Blake's patent stone breaker, made by you, for the last 12 months, crushing emery, &c., and it has given every satisfaction. Some time after starting the machine a piece of the moveable jaw, about 20 lbs. weight, chilled cast-iron, broke off, and was crushed in the jaws of the machine to the size fixed for crushing the emery.
H. R. Marsden, Esq. TIOS. GOLDSWORTHY & SONS.

Alkali Works, near Wednesbury.—I at first thought the outlay too much for so simple an article, but now think it money well spent.
WILLIAM HUNT.

Welsh Gold Mining Company, Dolgelly.—The stone breaker does its work admirably, crushing the hardest stones and quartz.
WM. DANIEL.

Our 15 by 7 in. machine has broken 4 tons of hard whinstone in 20 minutes, for fine road metal, free from dust.
Messrs. ORD and MADDISON, Stone and Lime Merchants, Darlington.

Kirkless Hall, near Wigan.—Each of my machines breaks from 100 to 120 tons of limestone or ore per day (10 hours), at a saving of 4d. per ton.
JOHN LANCASTER.

Ovea, Ireland.—My crusher does its work most satisfactorily. It will break 10 tons of the hardest copper ore stone per hour.
WM. G. ROBERTS.

General Fremont's Mines, California.—The 15 by 7 in. machine effects a saving of the labour of about 30 men, or \$75 per day. The high estimation in which we hold your invention is shown by the fact that Mr. Park has just ordered a third machine for this estate.
SILAS WILLIAMS.

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MEADOW LANE, LEEDS,

ONLY MAKER IN THE UNITED KINGDOM.

International Exhibition, 1862—Prize Medal.



JAMES RUSSELL AND SONS
(the original patentees and first makers of wrought-iron tubes), of the CROWN PATENT TUBE WORKS, WEDNESBURY, STAFFORDSHIRE, HAVE BEEN AWARDED A PRIZE MEDAL for the "good work" displayed in their wrought-iron tubes and fittings.
Warehouse, 81, Upper Ground-street, London, S.

BICKFORD'S PATENT SAFETY-FUSE OBTAINED THE PRIZE MEDALS AT THE ROYAL EXHIBITION OF 1851, at the INTERNATIONAL EXHIBITION OF 1862, in London, and at the IMPERIAL EXPOSITION held in Paris, in 1865.



BICKFORD, SMITH, AND CO.
OF TUCKINGMILL, CORNWALL, MANUFACTURERS OF PATENT SAFETY-FUSE, having been informed that the name of their firm has been attached to fuse not of their manufacture, beg to call the attention of the trade and public to the following announcement:—
EVERY COIL OF FUSE MANUFACTURED by them has TWO SEPARATE THREADS PASSING THROUGH THE COLUMN OF GUNPOWDER, and BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SEPARATE THREADS as THEIR TRADE MARK.

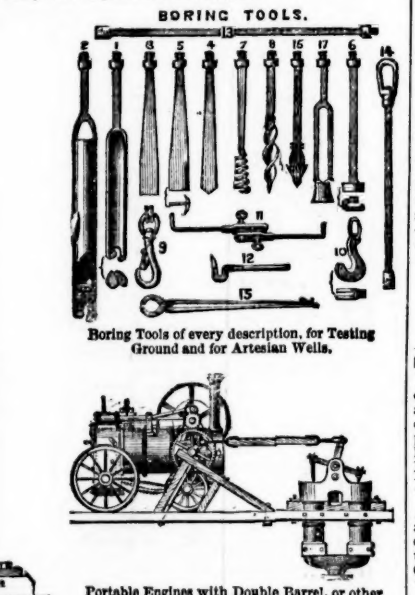
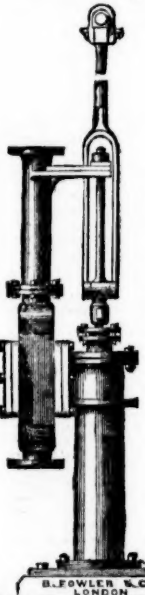
THOMAS TURTON AND SONS,



MANUFACTURERS OF
CAST STEEL FOR PUNCHES, TAPS, and DIES,
TURNING TOOLS, CHISELS, &c.
CAST STEEL PISTON RODS, CRANK PINS, CON-
NECTING RODS, STRAIGHT AND CRANK
AXLES, SHAFTS and
FORGINGS of EVERY DESCRIPTION.
DOUBLE SHEAR STEEL, FILES MARKED
BLISTER STEEL, T. T. R. T. O. N.
SPRING STEEL, EDGE TOOLS MARKED
GERMAN STEEL, WM. GREAVES & SON.
Locomotive Engine, Railway Carriage and Wagon
Springs and Buffers.

SHEAF WORKS AND SPRING WORKS, SHEFFIELD.
LONDON WAREHOUSE, 35, QUEEN STREET, CANNON STREET, CITY, E.C.,
Where the largest stock of steel, files, tools, &c., may be selected from.

S. OWENS AND CO. (LATE CLINTON AND OWENS).
WHITEFRIARS STREET, FLEET STREET, LONDON, E.C.,
HYDRAULIC AND GENERAL ENGINEERS,
MANUFACTURERS OF PUMPS OF EVERY DESCRIPTION FOR HAND,
HORSE, WATER, OR STEAM POWER.



Improved Double-action Pumps.
Full Information, Drawings, Price Lists, &c., relating to the above, and to Hydraulic Machinery of all descriptions—Crabs, Pulleys, Blocks, and Hoisting Tackle of superior manufacture—may be had on application.

Patent Flat and Round Wire and Hemp Ropes, &c.

JOHN AND EDWIN WRIGHT, PATENTEES,
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ESTABLISHED 1770.
Manufacturers of every description of
IMPROVED PATENT FLAT AND ROUND WIRE ROPES,
From the very best quality of charcoal iron and steel wire.
PATENT FLAT AND ROUND HEMP ROPES.
SHIPS' RIGGING, SIGNAL AND FENCING STRAND, LIGHTNING
CONDUCTORS, STEAM PLOUGH ROPES (made from Webster
and Horsfall's patent steel), WIRE, HEMP, FLAX,
ENGINE YARN, COTTON WASTE, &c.
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UNIVERSE WORKS, GARRISON STREET, BIRMINGHAM.
No. 2, OSWALD STREET, GLASGOW.
CITY OFFICE, No. 19, LONDON STREET, LONDON.

CHARLES DAVEY AND CO.,
SAFETY FUSE MANUFACTURERS,
ST. HELEN'S JUNCTION, LANCASHIRE.

BASTIER'S CHAIN PUMP.—This patent pump is the MOST EFFICIENT in existence for LIFTING ANY QUANTITY OF WATER from ANY DEPTH. One lifting from a depth of 170 ft. may be seen at work daily, on application to the

SOLE LICENSEES,
MESSRS. J. JACKSON AND CO., ENGINEERS, 17, GRACECHURCH STREET, LONDON, E.C.
Who SUPPLY PUMPS AND LICENCES.
Communications to Mr. Bastier, the patentee, to be sent to the same address.

AGENT FOR THE COUNTIES OF NORTHUMBERLAND AND DURHAM, YORKSHIRE, DERBYSHIRE, AND NORTH STAFFORDSHIRE,
MR. THOMAS GREENER, MINING OFFICE, NORTHGATE, DARLINGTON.

CREASE'S NEW AND IMPROVED PATENT BORING MACHINE.—In consequence of the various and IMPORTANT IMPROVEMENTS that an experience of several years has enabled the inventor to introduce into these machines, he can with the most perfect confidence recommend them for their increased DURABILITY, SIMPLICITY, ECONOMY, and SPEED to be attained by their adoption in DRIVING LEVELS or DRIFTS. The inventor has made arrangements to supply them in any quantity, with warranty. Orders executed according to their date of priority.
Address, EDWARD S. CREASE, Tavistock, Devon.

Just published, price 2s. 6d.,
A SMALL BOOK ON PUDDLING, containing useful and important information for Puddlers, Ironworkers, and others, may be obtained through booksellers, or direct from the author. Where foremen and others subscribe, and forward a Post-office order, a liberal allowance will be made, which will be increased if the number ordered is 24.—For terms, apply to B. BAYLISS, Bridge-street, Pontypool, Monmouthshire.

AMERICAN JOURNAL OF SCIENCE AND ARTS,
published by Profs. SILLIMAN and DANA (aided editorially by Profs. Gray, Agassiz, Gibbs, Johnson, Brush, and Newton), at New Haven, Connecticut, every other month, commencing each year with January, in numbers of 140 pages each, making two volumes a year. Now in its forty-eighth year. The ninety-second volume (or forty-second volume of second series) commences on July 1, 1866. Messrs. Trübner and Co., 60, Paternoster-row, London, agents.

IRON TRADE CIRCULAR (RYLANDS).
NOTICE.—MR. GEORGE RYLAND, "IRON TRADE CIRCULAR" OFFICE, UNION CHAMBERS, UNION PASSAGE, BIRMINGHAM.
To OUR ESTEEMED CORRESPONDENTS.—For the convenience of the proprietors of the "Iron Trade Circular," our subscribers and patrons are respectfully requested to give all orders and make all remittances direct to Mr. George Ryland, the financial partner of the "Iron Trade Circular," at the above address, and not, as heretofore, to Messrs. Charles Ryland and Sons, the proprietors being desirous of keeping their business apart from any other, as the circulation and acceptance of the "Iron Trade Circular," as an advertising medium, renders this course absolutely necessary. We trust this slight alteration will not occasion any inconvenience to our friends.

THE COUNTY PAPER.—County advertisements inserted by Authority of the Court of Quarter Sessions.

THE FLINT COUNTY CHRONICLE: A Mining, Agricultural, and General Advertiser for Mold, Flint, Rhyl, Holywell, Northop, Buckley, Hawarden, Saltney, and neighbourhood. The great success which has attended the publication of the "County Chronicle" justifies the proprietors in drawing the attention of advertisers to the special advantages it offers as an advertising medium. For the announcements of auctioneers, public companies, and tradesmen, it is the best in the county, having attained a circulation throughout Flintshire treble that of all the other so-called local papers combined. As a newspaper it contains full and impartial reports of all local events, and devotes particular attention to the mining and oil trade interests of the district—special articles appearing from week to week. Agriculture is not neglected, the latest market reports being a distinctive feature of the paper, together with other matters of interest to the agriculturist. All communications should be addressed "To the Editor," Bromfield Villa, Maesdyderwen, Mold.

THE NEWCASTLE CHRONICLE AND NORTHERN COUNTIES ADVERTISER. (ESTABLISHED 1764.)
Published every Saturday, price 2d., or quarterly 2s. 3d.
THE DAILY CHRONICLE AND NORTHERN COUNTIES ADVERTISER.
Published every morning, price 1d.
Offices, 42, Grey-street, Newcastle-upon-Tyne; 50, Howard-street, North Shields; 195, High-street, Sunderland.

THE STOCKTON AND HARTLEPOOL MERCURY AND MIDDLESBOROUGH NEWS (published at Hartlepool) is eminently the organ of the Coal, Iron, and Iron Shipbuilding Trades in the extensive Mining and Maritime District of South Durham and Cleveland, with which it has been closely identified since its origin. The "Mercury" was for years the only newspaper published in South Durham and Cleveland, and is yet the only one published more than once a week. Advertisements to be forwarded to the publisher, Mr. JOHN H. BELL, Southgate, Hartlepool.

DR. WATSON (of the Lock Hospital), F.R.S., Member of the College of Physicians and Surgeons, on the SELF-CURE OF NERVOUS and PHYSICAL DEBILITY, Loss of Spirit, Loss of Appetite, Timidity, Incapacity for Exertion, &c., with means for perfect restoration. Sent free on receipt of two stamps, by Dr. WATSON, No. 1, South-crescent, Bedford-square, London. Consultations daily from Eleven till Three, and Six till Eight.

Just published, post free for two stamps,
WONDERFUL MEDICAL DISCOVERY, demonstrating the true causes of Nervous, Mental, and Physical Debility, Loss of Spirit, Indigestion, Want of Energy, Premature Decline, with plain directions for perfect restoration to health and vigour, WITHOUT MEDICINE. Sent free on receipt of two stamps, by W. HILL, Esq., M.A., Berkeley House, South-crescent, Russell-square, London, W.C.

NERVOUS DEBILITY: ITS CAUSE AND CURE.—Before seeking aid from the so-called remedies without medicine, read this valuable work on the Treatment and Cure of Nervous and Physical Debility, Loss of Appetite, Pains in the Back, Spermatorrhoea, &c., with Plain Directions for Perfect Restoration to Health. Sent post free to any address, on receipt of two postage stamps. Letters of enquiry or details of cases promptly answered.
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CONSULT DR. HAMMOND (of the Lock Hospital, &c.),
No. 11, Charlotte-street, Bedford-square, London, W.C., in all those ailments which tend to embitter and shorten life, and especially those termed peculiar and confidential. At home, Nine to Two, and Six to Eight; Sundays, Ten to Twelve. The "Self-Curative Guide" post free, six stamps.
N.B.—Cases of recent infection cured in two days.

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THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
200	Botallack, t. c. St. Just	91 5 0	—	270 300	488 15 0	5 0 0	May, 1866
1000	British Lake Company	8 0 0	—	—	9 per cent.	—	Mar, 1866
1000	Bronfay, t. Cardigan	12 0 0	—	—	4 10 0	0 0 0	May, 1866
916	Cargill, s. t. Newlyn	15 5 7	16	14 18	13 15 0	1 0 0	Feb, 1866
867	Cwm Erfin, t. Cardiganshire	7 10 0	—	—	20 18 0	1 0 0	Feb, 1866
128	Cwmystwith, t. Cardiganshire	60 0 0	—	—	352 10 0	5 0 0	April, 1866
280	Dewon Mines, s. t. Durham	300 0 0	—	—	162 0 0	2 10 0	Mar, 1866
1024	Devon Gt. Consols, c. Tavistock	1 0 0	—	420 440	1030 0 0	6 0 0	July, 1866
858	Dolcoath, c. t. Camborne	128 17 6	—	—	813 10 0	1 0 0	June, 1866
6144	East Caradon, c. St. Cleer	2 14 6	—	—	14 5 0	0 2 6	July, 1866
300	East Darwen, t. Lancashire	32 0 0	—	—	113 10 0	2 0 0	May, 1866
128	East Pool, t. c. Pool, Illogan	24 5 0	—	—	379 10 0	5 0 0	July, 1866
5000	East Rosewarne, c. t. Gwinnar	2 15 0	—	—	0 10 0	0 1 6	Jan, 1866
1906	East Wheel Lovell, t. Wendron	3 9 0	7	5 6	2 7 6	0 7 6	Jan, 1866
2800	Foxdale, t. Isle of Man	25 0 0	—	—	68 10 0	0 10 0	June, 1866
5000	Frank Mills, t. Christow	3 18 6	—	—	3 5 6	0 5 0	June, 1866
15000	Great Laxey, t. Isle of Man	4 0 0	—	191 204	4 15 0	0 10 0	May, 1866
5908	Great Wheal Vor, t. c. Helston	40 0 0	—	—	10 0 0	0 10 0	June, 1866
1024	Herodsfoot, t. near Liskeard	8 10 0	35	30 32	37 10 0	1 10 0	June, 1866
6000	Hingston Down, c. t. Liskeard	5 10 6	—	—	0 10 0	0 5 0	April, 1866
400	Lisburne, t. Cardiganshire, Wales	18 15 0	—	—	470 0 0	3 0 0	May, 1866
9000	Marke Valley, c. Caradon	4 10 6	—	—	3 7 0	0 2 0	July, 1866
3000	Minera Boundary, t. Wrexham	1 0 0	—	—	0 13 0	0 3 0	Mar, 1866
1800	Minera Mining Co. t. Wrexham	25 0 0	—	—	198 3 0	5 0 0	May, 1866
40000	Mynydd Iron Ore	3 0 0	—	—	0 6 6	0 2 6	May, 1866
600	Pant-y-Glen, s. t. Llanidloes	20 0 0	—	—	10 per cent.	—	May, 1866
200	Parys Mines, c. Anglesey	50 0 0	—	—	157 0 0	5 0 0	Jan, 1866
1120	Penryn, t. c. Uny Lelant	10 6 7	24	20 23	80 17 6	0 10 0	May, 1866
512	South Caradon, c. St. Cleer	1 5 0	350	—	524 10 0	7 0 0	May, 1866
6000	South Darwen, t. c. St. Cleer	3 6 6	—	—	0 5 6	0 2 6	June, 1866
6000	Tincroft, t. c. St. Cleer	3 0 0	—	—	18 1 0	0 0 0	June, 1866
2000	W. Chiverton, t. Perranarabuth	3 0 0	—	65 70	456 4 0	3 0 0	June, 1866
400	West Wheal Seton, c. Camborne	47 10 0	115	100 110	620 0 0	1 0 0	June, 1866
512	Wheal Bassett, c. Illogan	5 2 6	75	—	300 0 0	1 0 0	Mar, 1866
1024	Wheal Friendship, c. Devon	20 0 0	—	—	2 19 0	0 1 6	May, 1866
4295	Wheal Killy, t. St. Agnes	5 4 6	—	—	1 0 0	0 10 0	Feb, 1866
2500	Wheal Rose, c. Scorrier	—	—	—	226 15 0	5 0 0	April, 1866
396	Wheal Seton, t. c. Camborne	58 10 0	150	140 150	54 0 6	0 5 0	June, 1866
1040	Wheal Trelawny, s. t. Liskeard	5 17 0	13	11 13	—	—	—

BRITISH MINES WITH DIVIDENDS IN ABEYANCE.

1055	Craddock Moor, c. St. Cleer	10 11 0	—	—	7 12 0	0 4 0	June, 1865
1200	Bryn Gwyn, t. Mold	9 0 0	—	—	3 3 6	0 13 6	Aug, 1865
2880	Clifford Amalgamated, c. Gwinnar	30 10 0	—	—	33 6 0	0 10 0	June, 1865
6000	East Carn Brea, c. Redruth	3 15 0	—	—	0 5 0	0 5 0	June, 1865
20000	Miner's Co. of Ireland, c. t. c.	7 0 0	—	—	19 18 11	0 16 1	July, 1865
6000	New Birch Tor and Viller Cons. t.	1 0 0	—	—	0 13 0	0 2 0	Oct, 1865
6000	West Bassett, c. Illogan	1 10 0	—	—	26 14 0	0 5 0	July, 1865
1024	Wheal Exmouth, t. Christow	8 0 0	—	—	59 17 6	0 10 0	Mar, 1865
1024	Wheal Mary Ann, t. Menheniot	8 0 0	—	—	15 11 0	0 11 0	Nov, 1865
7000	Wicklow, c. Wicklow	2 10 0	—	—	—	—	—

FOREIGN DIVIDEND MINES.

5000	Cape Copper Mining	7 0 0	—	—	2 12 6	0 10 0	April, 1866
1500	East Indian Coal, Calcutta	10 0 0	—	—	1 3 4	0 3 0	Feb, 1866
5000	Fortuna, t. Spain	2 0 0	—	—	7 7 6	per cent. per annum.	—
10000	Gonnessa, t. Spain	3 0 0	—	—	11 6 4	0 5 0	Jan, 1865
5000	Linares, t. Spain	3 0 0	—	—	0 12 0	0 2 0	Aug, 1865
5000	New Wilbergh, t. Spain	2 0 0	—	—	10 per cent.	—	Yearly.
10000	Panizuela, c. t. Spain	20 0 0	—	—	2 12 8	0 16 8	Dec, 1865
97500	Port Phillip, c. Clunes	1 0 0	—	—	0 14 6	0 1 0	Jan, 1866
20000	Scottish Australian Mining Co. t.	1 0 0	—	—	0 0 3	0 0 3	Jan, 1866
11000	St. John del Rey, Brazil	15 0 0	—	—	68 15 0	0 4 0	June, 1866
50000	Victoria (London) 25000 £1 pd., 25000 12s. 6d. pd.	—	—	—	0 9 0	0 1 0	Jan, 1866
40000	West Canada Mining Company	1 0 0	—	—	0 19 6	0 2 6	May, 1865

FOREIGN MINES WITH DIVIDENDS IN ABEYANCE.

10000	Alten and Quanganen United, c.	4 10 0	—	—	4 5 0	0 15 0	Nov, 1865
20000	Burra Burr, c. South Australia	7 7 6	—	—	0 1 0	0 1 0	Dec, 1865
2464	Burra Burr, c. South Australia	5 0 0	—	—	325 0 0	5 0 0	Dec, 1865
12000	Cobre Copper Company, c. Chile	10 0 0	—	—	101 0 0	1 0 0	Jan, 1866
100000	Copio Mining Company, Chile	16 0 0	—	—	6 18 0	0 10 0	Nov, 1865
100000	Don Pedro No. del Rey, Brazil	14 0 0	—	—	0 0 9	0 0 9	Dec, 1865
70000	English and Australian, c.	5 0 0	—	—	112 0 0	2 0 0	Aug, 1865
25000	Gen. Mining Assoc., Nova Scotia	20 0 0	—	—	21 0 0	1 0 0	Jan, 1866
68000	Kapunda Mining Co., Australia	1 0 0	—	—	0 12 0	0 1 0	June, 1866
10000	Lustanada (Portugal)	2 10 0	—	—	1 7 0	0 3 0	June, 1865
108815	Mariquina and New Grant, c.	1 0 0	—	—	0 9 6	0 1 6	Aug, 1865
43174	United Mexican, s. Mexico	23 5 0	—	—	2 19 0	0 5 0	Sept, 1865
10000	Vancouver, c. t.	5 0 0	—	—	0 15 0	0 5 0	Nov, 1865
45000	Yudanamutana, c. S. A.	3 0 0	—	—	0 5 0	0 5 0	Aug, 1865

NON-DIVIDEND FOREIGN MINES.

25000	Alamillos, t. Spain	2 0 0	—	—	1 1 1	1 1 1	—
100000	Anglo-Brazilian, c.	0 8 0	—	—	0 8 0	—	—
25000	Capula, s. Mexico	1 8 0	—	—	—	—	—
30000	Chontales, c. t. Nicaragua	—	—	—	3 1 1	1 1 1	—
10000	Copio Mining, Chile	10 0 0	—	—	150 470	pd.]	—
50000	East del Rey, c. Brazil	2 15 0	—	—	—	—	—
12000	El Chico Silver Mining and Reduction Company	4 10 0	—	—	—	—	—
8000	English and Canadian Mining Company	5 0 0	—	—	—	—	—
40000	Fortuna, c. West Australia	2 0 0	—	—	—	—	—
50000	Frontino and Bolivia, c. New Granada	1 5 0	—	—	3 1 1	10s. 12s.	—
80000	Great Northern, c. South Australia	1 1 0	—	—	—	—	—
10000	Great Barrier Land, Mining, c. New Zealand	5 0 0	—	—	—	—	—
12000	Norrboda Coal and Iron 5000 £5 pd., 5000 £3 pd.]	—	—	—	—	—	—
50000	Nova Scotia Lard and Gold	1 15 0	—	—	—	—	—
15000	Orea, c. New Zealand 5000 fully paid]	1 10 0	—	—	—	—	—
15000	Pacheco Silver Mining Company, Mexico	1 0 0	—	—	—	—	—
6000	Peel River Land and Mineral	100 0 0	—	—	—	—	—
20000	Pestarene, c. t.	1 10 0	—	—	—	—	—
20000	Quebrada, c. Venezuela	10 0 0	—	—	—	—	—
10178	Rhenish Consolidated, t. 5000 £5 pd., 4178 £2 10s. pd.]	—	—	—	—	—	—
50000	Rosa Grande, c. Brazil	6 7 6	—	—	—	—	—
15000	San Pedro del Monte, s. Mexico	8 0 0	—	—	—	—	—
10000	San Roque, t. Spain	5 0 0	—	—	—	—	—
20000	Val Antioquia, c. t.	0 15 0	—	—	—	—	—
6000	Val Sasam, c. t.	5 10 0	—	—	—	—	—
50000	Valdesodam Mining Company	20 0 0	—	—	—	—	—
50000	Valparaiso, c. t.	0 15 0	—	—	—	—	—
50000	Victor Emanuel, c. Italy	1 0 0	—	—	—	—	—
20000	Washoe, c. 10000 £5 pd., 10000 £4 pd.]	—	—	—	—	—	—
80000	Worthing, c. South Australia	1 0 0	—	—	—	—	—
7500	Yorke Peninsula, South Australia	1 0 0	—	—	—	—	—

BANKS AND FINANCIAL COMPANIES.

40000	Alliance	25 0 0	—	—	21 23	—	—
40000	Australian Mort. Land and Finance	5 0 0	—	—	5 4 5	—	—
20000	Australasian	40 0 0	—	—	66 68	—	—
10000	Bank of Egypt	25 0 0	—	—	31 33	—	—
25000	Bank of India	25 0 0	—	—	4 6	—	—
25000	Bank of Victoria	25 0 0	—	—	4 6	—	—
50000	Bank of New Zealand	10 0 0	—	—	17 19	—	—
10000	Bank of Queensland	25 0 0	—	—	8 12	—	—
50000	Brazilian and Portuguese	10 0 0	—	—	8 9	—	—
8015	Canada Company	32 10 0	—	—	77 80	—	—
50000	Canadian Loan and Investment	2 10 0	—	—	—	—	—
40000	Chart. Bank India, Aust. & China	20 0 0	—	—	16 18	—	—
20000	Char. Merc. India, Lond. & China	10 0 0	—	—	35 37	—	—
20000	City	10 0 0	—	—	16 18	—	—
20000	Colonial	25 0 0	—	—	39 41	—	—
40000	Company of African Merchants	3 0 0	—	—	2 3	—	—
150000	Consolidated Bank	4 0 0	—	—	5 6	—	—
20000	Credit Foncier and Mobilier of England	7 0 0	—	—	8 9	—	—
10000	Discount Corporation	20 0 0	—	—	6 8	—	—
20000	East London	5 0 0	—	—	2 3	—	—
20000	English, Scottish & Aust. Chart.	20 0 0	—	—	19 20	—	—
20000	English and Swedish	20 0 0	—	—	12 14	—	—
250000	General Credit and Finance of London	6 0 0	—	—	4 5	—	—
20000	Imperial Bank	20 0 0	—	—	28 28	—	—
150000	International Financial Society	5 0 0	—	—	3 4	—	—
300000	International Land Credit	6 0 0	—	—	2 3	—	—
40000	London African Trading	10 0 0	—	—	5 7	—	—
40000	London Chart. Bank of Australia	20 0 0	—	—	22 23	—	—
27500	London and County	20 0 0	—	—	65 67	—	—
40000	London Financial Association	25 0 0	—	—	14 15	—	—
72000	London Joint-Stock	15 0 0	—	—	46 46	—	—
5000	London Mercantile Discount	10 0 0	—	—	—	—	—
10000	London and South-Western	20 0 0	—	—	18 18	—	—
50000	London and Westminster	20 0 0	—	—	96 98	—	—
50000	Mercantile and Exchange	11 10 0	—	—	—	—	—
17156	Metropolitan and Provincial	20 0 0	—	—	—	—	—
20000	Mineral Rights Association	1 0 0	—	—	3 1	—	—
20000	National Australia	10 0 0	—	—	6 6	—	—
20000	National of Liverpool	10 0 0	—	—	13 14	—	—
40000	National	30 0 0	—	—	68 70	—	—
27500	New South Wales	20 0 0	—	—	42 44	—	—
12500	Ottoman Company	2 0 0	—	—	1 2	—	—
40000	Union of Australia	25 0 0	—	—	44 46	—	—
80000	Union of London	15 0 0	—	—	44 46	—	—

PROGRESSIVE MINES.